

## TRANSMITTAL MEMO

### Copies

To: Ginny Lombardo – USEPA  
David Chaffin – MADEP  
Hui Laing – MADEP  
Julie Corenzwit – Co-Chair, Devens Restoration Advisory Board  
Laurie Nehring – PACE  
Richard Doherty – Engineering and Consultant Resources, Inc.  
James Greacen – Mabbett & Associates, Inc.  
Deborah Gevalt – Haley & Aldrich, Inc.  
Ron Ostrowski – Mass Development  
Town of Ayer – Board of Selectman  
Town of Ayer – Board of Health

2 - CD / Attachments  
CD / Attachments  
CD / Attachments  
CD / Attachments  
CD / Attachments  
CD  
CD / Attachments  
CD / Attachments  
CD / Attachments  
CD / Attachments  
CD / Attachments

From: Jonathan Chaffee – Sovereign Consulting Inc.

Cc: Bob Simeone – BEC, Devens RFTA  
Ellen Iorio – USACE New England District  
Marc Cicalese – Sovereign Consulting  
Eric Simpson – Sovereign Consulting

CD / Daptiv / Attachments  
2 - CD / Daptiv / Attachments  
Electronic copy  
Electronic copy

Date: 24 July 2013

Subject: **Shepley's Hill Landfill Barrier Wall – Removal Action Completion Report**  
**(Final Version)** Contract Number W912WJ-10-D-0003, Delivery Order 0002

On behalf of the US Army Corps of Engineers (USACE) New England District and the Army BRAC Environmental Office at Devens, Sovereign is pleased to provide the following attachments:

1. CD, including Report text, figures, tables, and all Report attachments.
2. Removal Action Completion Report replacement cover page and text.

Please contact Bob Simeone or myself if there are questions regarding the attachments.

Sincerely,



(Electronic Signature)

Jonathan J. Chaffee  
Project Manager

Enclosure: As noted above

**FINAL**



# **REMOVAL ACTION COMPLETION REPORT**

**FOR SHEPLEY'S HILL LANDFILL BARRIER WALL**

**SHEPLEY'S HILL LANDFILL**

---

**FORMER FORT DEVENS ARMY INSTALLATION, DEVENS, MA**

**JULY 2013**

**Prepared for:  
US Army Corp of Engineers  
New England District  
Concord, Massachusetts**

**Prepared by:  
Sovereign Consulting Inc.  
Contract No.: W912WJ-10-D-0003  
Delivery Order: 0002**





### **NOTICE**

The United States Department of Defense, Department of Army, funded wholly or in part the preparation of this document and work described herein under Contract No. W912WJ-10-D-0003 and Delivery Order 0002. Mention of trade names or commercial products does not constitute endorsement or recommendation for use.



# Removal Action Completion Report Shepley’s Hill Landfill Barrier Wall

Final

Devens, Massachusetts

July 2013

## CERTIFICATION:

I hereby certify that the enclosed Report, shown and marked in this submittal, is that proposed to be incorporated with Contract Number W912WJ-10-D-0003 DO#0002. This Document has been prepared in accordance with USACE Scope of Work and is hereby submitted for Government Approval.

Reviewed By:

A handwritten signature in blue ink, appearing to read 'J J h'.

7/24/2013

Sovereign Project Manager

Date

A handwritten signature in blue ink, appearing to read 'E. D. Smith'.

7/24/2013

Sovereign Quality Control Manager

Date

Received By:

IORIO.MARYELLEN.1228893800

Digitally signed by IORIO.MARYELLEN.1228893800  
DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=IORIO.MARYELLEN.1228893800  
Date: 2013.07.24 12:39:30 -04'00'

USACE Project Manager

Date



## TABLE OF CONTENTS

|            |                                                                          |           |
|------------|--------------------------------------------------------------------------|-----------|
| <b>1.0</b> | <b>PROJECT DESCRIPTION.....</b>                                          | <b>1</b>  |
| 1.1        | SITE BACKGROUND AND CONTAMINANTS .....                                   | 1         |
| <b>2.0</b> | <b>NATURE AND EXTENT OF CONTAMINATION AND CONCEPTUAL SITE MODEL.....</b> | <b>3</b>  |
| <b>3.0</b> | <b>OBJECTIVES AND SCOPE.....</b>                                         | <b>4</b>  |
| 3.1        | REMOVAL ACTION OBJECTIVES.....                                           | 4         |
| 3.2        | REMOVAL ACTION SCOPE .....                                               | 4         |
| 3.3        | REMOVAL ACTION DESIGN .....                                              | 4         |
| 3.4        | BARRIER WALL BACKFILL MIX DESIGN.....                                    | 5         |
| 3.4.1      | <i>Phase I Laboratory Testing .....</i>                                  | <i>5</i>  |
| 3.4.2      | <i>Phase II Laboratory Testing .....</i>                                 | <i>6</i>  |
| <b>4.0</b> | <b>SOIL BENTONITE BARRIER WALL CONSTRUCTION ACTIVITIES .....</b>         | <b>6</b>  |
| 4.1        | SUBMITTALS.....                                                          | 7         |
| 4.2        | PRE-MOBILIZATION .....                                                   | 7         |
| 4.3        | MOBILIZATION .....                                                       | 7         |
| 4.4        | SITE PREPARATION.....                                                    | 7         |
| 4.4.1      | <i>Pre-construction Survey .....</i>                                     | <i>7</i>  |
| 4.4.2      | <i>Access Road Upgrade and Haul Road Construction .....</i>              | <i>8</i>  |
| 4.4.3      | <i>Staging Area Construction .....</i>                                   | <i>8</i>  |
| 4.4.4      | <i>Erosion and Sedimentation Control.....</i>                            | <i>8</i>  |
| 4.4.5      | <i>Working Platform Construction .....</i>                               | <i>9</i>  |
| 4.5        | BARRIER WALL INSTALLATION ACTIVITIES .....                               | 9         |
| 4.5.1      | <i>Slurry Wall Installation .....</i>                                    | <i>9</i>  |
| 4.5.2      | <i>Slurry Wall Capping.....</i>                                          | <i>12</i> |
| 4.5.3      | <i>Landfill Liner Repair.....</i>                                        | <i>12</i> |
| 4.6        | SITE RESTORATION AND DEMOBILIZATION.....                                 | 13        |
| 4.6.1      | <i>Site Restoration .....</i>                                            | <i>13</i> |
| 4.6.2      | <i>Demobilization .....</i>                                              | <i>13</i> |
| 4.6.3      | <i>Piezometer Installation .....</i>                                     | <i>14</i> |
| 4.6.4      | <i>Post Construction Survey.....</i>                                     | <i>15</i> |
| <b>4.7</b> | <b>MODIFICATIONS DURING CONSTRUCTION.....</b>                            | <b>15</b> |



|             |                                                                |           |
|-------------|----------------------------------------------------------------|-----------|
| 4.7.1       | BACKFILL MIX MODIFICATIONS .....                               | 15        |
| 4.7.2       | SITE RESTORATION MODIFICATIONS.....                            | 15        |
| 4.7.3       | PIEZOMETER INSTALLATION CHANGES.....                           | 16        |
| <b>5.0</b>  | <b>WASTE DISPOSAL .....</b>                                    | <b>16</b> |
| 5.1         | SOLID WASTES.....                                              | 16        |
| 5.1.1       | <i>On-site Stockpiling of Landfill Waste-laden Soils .....</i> | <i>16</i> |
| 5.1.2       | <i>Screening and Disposal of Waste.....</i>                    | <i>16</i> |
| 5.2         | LIQUID WASTES.....                                             | 17        |
| <b>6.0</b>  | <b>PERFORMANCE STANDARDS &amp; QUALITY CONTROL (QC) .....</b>  | <b>18</b> |
| 6.1         | BARRIER WALL INSTALLATION QUALITY CONTROL .....                | 18        |
| 6.2         | LANDFILL LINER QUALITY CONTROL.....                            | 21        |
| 6.3         | PIEZOMETER INSTALLATION QUALITY CONTROL .....                  | 21        |
| 6.4         | HEALTH AND SAFETY .....                                        | 21        |
| <b>7.0</b>  | <b>DEMONSTRATION OF COMPLETION.....</b>                        | <b>22</b> |
| 7.1         | REMOVAL ACTION COMPLETION.....                                 | 22        |
| <b>8.0</b>  | <b>PERFORMANCE MONITORING .....</b>                            | <b>22</b> |
| <b>9.0</b>  | <b>PROJECT COST SUMMARY.....</b>                               | <b>22</b> |
| <b>10.0</b> | <b>COMMUNITY RELATIONS .....</b>                               | <b>23</b> |
| <b>11.0</b> | <b>CERTIFICATION STATEMENT.....</b>                            | <b>23</b> |
| <b>12.0</b> | <b>REFERENCES.....</b>                                         | <b>23</b> |



## **List of Figures**

Figure 1 - Site Location Map  
Figure 2 - Site Plan  
Figure 3 - Barrier Wall As-Built Profile  
Figure 4 – Slurry Wall Cap As-Built Detail  
Figure 5 - As-Built Survey  
Figure 6 – Enlarged As-Built Survey

## **List of Tables**

Table 1: Groundwater Quality Parameters Monitored During Piezometer Development  
Table 2: Barrier Wall Performance Monitoring Piezometer Construction Details

## **Appendices**

Appendix A – Submittal Packages  
Appendix B - Results of Off-site Laboratory Backfill 25%/75% Mix Testing  
Appendix C - Piezometer Boring Logs  
Appendix D - Waste Disposal Documentation  
Appendix E - Results of On-site Quality Control Measures  
Appendix F - Results of Off-site Laboratory Backfill Quality Control Testing  
Appendix G - Construction Trench Profiles  
Appendix H - Results of Laboratory Backfill Cap Quality Control Testing  
Appendix I - Results of Laboratory Landfill Liner Repair Destructive Testing  
Appendix J - Contractors Quality Control Reports  
Appendix K - Construction Completion Inspection Documentation  
Appendix L – Response to Comments

## ABBREVIATIONS, ACRONYMS, AND SYMBOLS

|            |                                                                       |
|------------|-----------------------------------------------------------------------|
| Accutest   | Accutest Laboratories                                                 |
| AHA        | Activity Hazard Analysis                                              |
| AOC        | Area of Contamination                                                 |
| AM         | Action Memorandum                                                     |
| AMEC       | AMEC Earth and Environmental, Inc.                                    |
| API        | American Petroleum Institute                                          |
| ASTM       | American Society for Testing and Materials                            |
| ATP        | Arsenic Treat Plant                                                   |
| BCT        | Base Closure Team                                                     |
| bgs        | Below Ground Surface                                                  |
| BMI        | Benthic Macro Invertebrates                                           |
| CERCLA     | Comprehensive Environmental Response, Compensation, and Liability Act |
| COC        | Contaminant of Concern                                                |
| COPC       | Contaminants of Potential Concern                                     |
| CQC        | Contractor Quality Control                                            |
| CQCP       | Contractor Quality Control Plan                                       |
| CQCR       | Contractor’s Quality Control Report                                   |
| cys        | Cubic Yards                                                           |
| DERP       | Defense Environmental Restoration Program                             |
| Devens     | Former Fort Devens                                                    |
| DFW        | Definable Feature of Work                                             |
| DOD        | Department of Defense                                                 |
| DOT        | Department of Transportation                                          |
| DTW        | Depth to Water                                                        |
| eBMI       | Epibenthic Macro Invertebrates                                        |
| EE/CA      | Engineering Evaluation/Cost Analysis                                  |
| ERA        | Ecological Risk Assessment                                            |
| E&S        | Erosion and Sedimentation                                             |
| EQNE       | The Environmental Quality Company - Northeast                         |
| FS         | Feasibility Study                                                     |
| g/day      | Grams per Day                                                         |
| Goulet     | Goulet Trucking                                                       |
| HSO        | Health and Safety Officer                                             |
| HDPE       | High Density Polyethylene                                             |
| MA         | Massachusetts                                                         |
| MassDEP    | Massachusetts Department of Environmental Protection                  |
| MassDOT    | Massachusetts Department of Transportation                            |
| MCP        | Massachusetts Contingency Plan                                        |
| Moretrench | Moretrench American Corporation                                       |
| MSR        | Material Shipping Record                                              |
| NCP        | National Oil and Hazardous Substances Pollution Contingency Plan      |
| NHSEP      | Natural Heritage and Endangered Species Program                       |
| NTCRA      | Non-Time-Critical Removal Action                                      |
| PACE       | People of Ayer Concerned about the Environment                        |

|           |                                               |
|-----------|-----------------------------------------------|
| PCBs      | Polychlorinated Biphenyls                     |
| pcf       | Per Cubic Foot                                |
| PVC       | Polyvinyl Chloride                            |
| QC        | Quality Control                               |
| QCM       | Quality Control Manager                       |
| RAB       | Restoration Advisory Board                    |
| RACR      | Removal Action Completion Report              |
| RAWP      | Removal Action Work Plan                      |
| RCRA      | Resource Conservation and Recovery Act        |
| RAO       | Removal Action Objective                      |
| RI        | Remedial Investigation                        |
| ROD       | Record of Decision                            |
| SHL       | Shepley’s Hill Landfill                       |
| SOP       | Standard Operating Procedure                  |
| Sovereign | Sovereign Consulting Inc.                     |
| SOW       | Statement of Work                             |
| SSHP      | Site Safety and Health Plan                   |
| SVOCs     | Semivolatile Organic Compounds                |
| SWQS      | Surface Water Quality Standards               |
| TEC       | Threshold Effects Concentration               |
| Terrafix  | Terrafix Environmental U.S.A. Inc.            |
| TDS       | Technical Drilling Services                   |
| TPH       | Total Petroleum Hydrocarbons                  |
| USCS      | Unified Soil Classification System            |
| USACE     | United States Army Corp of Engineers          |
| USEPA     | United States Environmental Protection Agency |
| VOCs      | Volatile Organic Compounds                    |
| WSP SELLS | WSP SELLS Transportation and Infrastructure   |

## 1.0 PROJECT DESCRIPTION

This Removal Action Completion Report (RACR) was prepared by Sovereign Consulting Inc. (Sovereign) to document Non-Time-Critical Removal Action (NTCRA) activities for the installation of a vertical hydraulic barrier (barrier wall) along the eastern portion of Shepley’s Hill Landfill (SHL) at the former Fort Devens Army Installation (Fort Devens) located in Devens, Massachusetts (MA). A Site Location Map is provided as **Figure 1**. The actions described in this document were performed by Sovereign under United States Army Corps of Engineers (USACE) Contract W912WJ-10-D-0003 DO#0002 and in accordance with the Final Removal Action Work Plan (RAWP) for Shepley’s Hill Landfill Barrier Wall (Sovereign, 2012b).

The NTCRA was performed pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) and the Defense Environmental Restoration Program (DERP). The Army is the lead agency for environmental cleanup at the former Fort Devens under Executive Order 12580 and the NCP. The Army has responsibility for implementing appropriate investigations, removal and/or remedial actions at sites where the release of hazardous substances may have or has occurred and where such releases may constitute a threat to human health and the environment. An *Engineering Evaluation/Cost Analysis* (EE/CA) (Sovereign, 2012c), a *Final Action Memorandum* (AM) (Sovereign, 2012b), and a RAWP (Sovereign, 2012a) were prepared in support of this NTCRA and describe the decision to proceed with the project and removal action specifics.

The primary project goals were to:

- Mitigate the arsenic-in-groundwater flux from SHL to Red Cove/Plow Shop Pond to reduce potential risk to environmental receptors consistent with local conditions in Plow Shop Pond, and;
- Comply with and/or achieve ARARs as applicable to Red Cove as summarized in the Appendix A of the RAWP (Sovereign, 2012a).

### 1.1 Site Background and Contaminants

Devens, MA is located approximately 35 miles northwest of the city of Boston, within the towns of Ayer, Shirley (Middlesex County), Harvard and Lancaster (Worcester County). The former Fort Devens was established in 1917 for military training and logistical support during World War I. Fort Devens became a permanent base in 1931, and continued service until its Base Realignment and Closure Committee closure in 1996.

SHL encompasses approximately 84 acres in the northeast corner of the main post of the former Fort Devens. The landfill is bordered to the northeast by Plow Shop Pond, to the west by Shepley’s Hill, to the south by recent commercial development, and to the east by land formerly containing a railroad roundhouse. Nonacoicus Brook, which drains Plow Shop Pond, is located north of the landfill (**Figure 1**).



SHL was reportedly operating by the early 1940s, and evidence from test pits within the landfill suggests earlier usage, possibly as early as the mid-nineteenth century. The landfill contains a variety of waste materials, including incinerator ash, demolition debris, asbestos, sanitary wastes, glass, and other wastes. The maximum depth of the refuse occurs in the central portion of the landfill and is estimated to be about 40 feet below ground surface (bgs). The volume of waste in the landfill has been estimated at over 1.5 million cubic yards (cys), of which approximately 160,000 cys (11%) is below the water table. The saturated wastes appear to be emplaced in a wetland reducing environment; at least two areas previously mapped as wetlands were filled (Harding ESE, 2002) and have been found to be underlain by peat deposits (Sovereign, 2011).

The landfill was closed in five phases between 1987 and 1992-93 in accordance with Massachusetts Regulations at 310 CMR 19.000. The Massachusetts Department of Environmental Protection (MassDEP) approved the closure plan in 1985. Closure consisted of installing a 30 to 40-mil polyvinyl chloride (PVC) membrane cap, covered with soil and vegetation and incorporating gas vents. Closure also included installation of wells to monitor groundwater quality around the landfill, and construction of drainage swales to control surface water runoff. MassDEP issued a Landfill Capping Compliance Letter approving the closure in February 1996.

Subsequent to closure of the landfill, remedial investigations (RIs) completed under CERCLA evaluated soil, sediment, surface water, and groundwater conditions at and in the immediate vicinity of the landfill. The results confirmed the presence of various contaminants, particularly certain inorganics and volatile organic compounds (VOCs), in groundwater, sediment, and surface water at or adjacent to SHL. A Feasibility Study (FS) and Record of Decision (ROD) resulted in a remedy that required long term monitoring and maintenance of the existing landfill cap and groundwater monitoring. The ROD (USAEC, 1995) required the Army to perform groundwater monitoring and five-year reviews to evaluate the effectiveness of the selected remedial action, which relied heavily on the previously installed landfill cap to attain groundwater cleanup goals by 2008 and to reduce potential exposure risks. If groundwater contaminant concentrations, primarily arsenic, met risk-based performance standards (cleanup goals) over time, the ROD did not require further action; however, if cleanup goals were not met, the ROD required implementation of a groundwater extraction contingency remedy. Due to continued elevated contaminant concentrations, the Army installed and operated a groundwater extraction and treatment system in March 2006 as a contingency remedy to address groundwater contamination emanating from the northern portion of the landfill (Sovereign, 2011a).

All available data indicate that the current remedies – landfill capping and groundwater extraction – have reduced but not eliminated groundwater flow and arsenic migration from SHL into Red Cove / Plow Shop Pond, identified as Area of Contamination (AOC) 72. The AOC 72 RI (AMEC, 2011) results suggest that groundwater discharge contributes arsenic to sediment that may accumulate to levels that result in conditions that pose unacceptable risks, and therefore remedies that minimize such arsenic-in-groundwater flux to Red Cove would be most protective.



## 2.0 NATURE AND EXTENT OF CONTAMINATION AND CONCEPTUAL SITE MODEL

The predominant source of the dissolved arsenic emanating from the landfill appears to be naturally occurring arsenic within aquifer sands and bedrock materials. Arsenic is being mobilized by both naturally-occurring and landfill-induced conditions through the geochemical process of reductive dissolution which releases dissolved arsenic to the aquifer.

Elevated arsenic concentrations in groundwater at SHL have subsequently impacted Red Cove/Plow Shop Pond which is located down-gradient and in close proximity to the northern portion of the landfill. Red Cove is a shallow cove with a water depth of less than one meter. Current arsenic flux to Red Cove, which is a shallow cove with a water depth of less than one meter, is estimated at ~14.6 grams per day (g/day) and was estimated to be 20 g/day with the landfill cap in place before the groundwater extraction and arsenic treatment plant (ATP) were installed (Sovereign, 2011a).

The Army evaluated whether a significant risk to human health or the environment exists at the SHL with the current remedy in place (AMEC, 2011). The human health risk assessment indicated that potential exposures to Contaminants of Potential Concern (COPCs) (principally arsenic) in surface water and sediment in Plow Shop Pond, including Red Cove, by recreational receptors, are within the USEPA’s acceptable cancer risk range and do not exceed a Hazard Index (HI) limit of 1. Furthermore, the results of a qualitative evaluation of the potential for fish ingestion indicate that the estimated risks and hazards associated with arsenic do not exceed the risk management limits, even with conservative exposure assumptions. As a result, no contaminant of concern (COC) is identified in either surface water or sediment in Plow Shop Pond, specifically Red Cove, exceeding risk thresholds based on the quantitative human health risk characterization. Although concentrations of arsenic in surface water exceed the Massachusetts Surface Water Quality Standards (SWQS) protective of fish ingestion, arsenic is not identified as a COC related to SHL’s influence to Red Cove in surface water considering the results of the quantitative risk characterization. The arsenic surface water criterion protective of fish ingestion by humans is currently under review by USEPA. The arsenic cancer slope factor may increase pending toxicological review within the next few years, and such an increase may increase the human health risk estimated in the RI beyond USEPA’s acceptable cancer risk range.

The ecological risk assessment indicated a risk of adverse effects for several receptors. Risk of adverse effects to benthic macro invertebrates/epibenthic macro invertebrates (BMI/eBMI) from exposure to COPCs is indicated not only in Red Cove, but throughout both Plow Shop Pond and Grove Pond. The BMI/eBMI results suggest that a weight of evidence finding on the potential for ecological impacts associated with Red Cove is not possible. This is because all locations associated with this study show significant indications of impact related to either exceedance of threshold effects concentrations (TECs) or diminishment of benthic and/or epibenthic markers. Hence, the BMI/eBMI risks are not distinguishable between the various sampling locations based on the currently available data. These findings are consistent with earlier ecological risk assessments (ERAs) which identified apparent adverse effects on BMI/eBMI, but were not able to identify specific causes. Those ERAs concluded that sediment





quality guidelines were exceeded most often for mercury, chromium, and arsenic, which is similar to the current finding (Gannett Fleming 2006). A localized risk of adverse effects to fish from exposure to ammonia at a Red Cove location is suggested by an aquatic bioassay.

### 3.0 OBJECTIVES AND SCOPE

#### 3.1 Removal Action Objectives

The basis for action under the NCP is determined by the potential threats to public health, welfare, and the environment posed by conditions at Plow Shop Pond. In accordance with the RAWP (Sovereign, 2012a), the general removal action objective (RAO) was the following:

- Mitigate the arsenic-in-groundwater flux from SHL to Red Cove/Plow Shop Pond to reduce risk to environmental receptors consistent with local conditions in Plow Shop Pond.

#### 3.2 Removal Action Scope

To mitigate the arsenic-in-groundwater flux from SHL to Red Cove/Plow Shop Pond and reduce risk to environmental receptors consistent with local conditions in Plow Shop Pond, groundwater flowing to Red Cove from the SHL should be diverted, treated, or captured. Particle track analysis conducted under present-day ambient pumping conditions has demonstrated that a barrier located along the eastern edge of the landfill would effectively mitigate the arsenic-in-groundwater flux by intercepting and diverting water flowing east into Red Cove/Plow Shop Pond from the landfill footprint to the north along the eastern landfill boundary under non-pumping conditions from the Arsenic Treatment Plant.

The barrier wall was installed along the eastern limit of the landfill and to the west of Red Cove. The barrier wall extended from the ground surface, through the landfill cap and a thin mantling of waste (encountered in some northern areas), through native sandy glacial deposits and glacial till, and to the bedrock surface. The boundaries and length of the barrier wall were based on the identified areas of impacted sediment in Red Cove, groundwater concentrations along the eastern edge of the SHL, and particle track analysis. Specific details of the remedial action design are presented in the following subsections. Details of the barrier wall construction activities are discussed below in **Section 4.0**.

#### 3.3 Removal Action Design

To achieve the RAOs, a barrier wall was designed to intercept and divert groundwater flowing in the overburden soils away from Red Cove. Groundwater modeling was performed to aid in designing the location, length, and depth of the barrier wall. The barrier wall consisted of an 850-foot long minimum barrier that extends through the overburden soils to the top of competent rock, with an effective hydraulic conductivity of  $1 \times 10^{-7}$  cm/sec. The location of the barrier wall is shown in **Figure 2**. The design of the barrier consisted of the development of project work plans and development of design drawings and specifications. The barrier wall drawings and specifications were presented in the RAWP (Sovereign, 2012a).



The design included the preparation of site plans, preparation of the site, soil/bentonite barrier wall construction, capping of the barrier wall and repair of the landfill liner/cap, management of excess soil material and landfill waste debris, and site restoration.

The results of a third party Green and Sustainable Remediation (GSR) study on the proposed Barrier Wall remedy as well as other alternatives evaluated during the FFS, performed by the US Army Engineering and Support Center, Huntsville (USAESCH), Environmental and Munitions Center of Expertise (EM CX), pursuant to the Department of Defense (DoD) Memorandum “Consideration of Green and Sustainable Remediation Practices in the Defense Environmental Restoration Program” (DoD, 2009) was incorporated into the design. During construction of the barrier the idling of the heavy diesel powered equipment was reduced the greatest extent possible. Additionally, all borrow material was provided via a local quarry. It should be noted that as reductions in green house gases were only associated with emissions and/or resource use, a qualitative analysis on resultant reductions was not appropriate for this scenario and therefore not included.

### **3.4 Barrier Wall Backfill Mix Design**

The design of the barrier wall required development and testing of the slurry characteristics and a backfill mix design test to serve as the basis for determining the optimal backfill mix to be used during construction. The testing was performed in two phases. Phase I consisted of developing a mix design for the barrier wall, and Phase II consisted of testing the selected backfill mix to confirm that the mix was compatible with the site groundwater. Each phase of testing is briefly described in the following subsections.

#### **3.4.1 Phase I Laboratory Testing**

Bentonite Testing: Initial testing included selection of API Section 9 bentonite. The testing consisted of preparation of bentonite-water slurries (about 0.05 to 0.06 by weight). Slurry was mixed using site source water (hydrant on Cook Street), and tested for density, filtrate loss, viscosity, and pH.

Backfill Mixing: Backfill mixes (Mix 1 and Mix 2 with additional 0.5% dry bentonite added) were prepared and tested using the bentonite slurry previously tested, site soil (native overburden), plastic fines/clay borrow (Graves sample), and dry bentonite. The Graves sample source had a USCS characterization of ML-CL. Testing of the prepared backfill included density, slump, gradation, and hydraulic conductivity testing. The laboratory results of the backfill mixing tests are summarized as follows:

- 1) Testing was performed on three mix designs with the following proportions: Mix 1 – 50% sample No. 6 with 50% Graves sample with 0.5% dry Hydrogel bentonite; Mix 2 – 50% sample No. 5 with 50% Graves sample with 0.5% dry Hydrogel bentonite; and Mix 2 (with additional 0.5% dry bentonite added) – 50% sample No. 5 with 50% Graves sample with 1% dry Hydrogel bentonite.
- 2) Backfill Mix 1 consisted of 52.9% sand and 47.1% silt and clay. Backfill Mix 2 consisted of 59.9% sand, 0.9% gravel, and 39.2% silt and clay.



- 3) The initial bulk density values of Mix 1, Mix 2, and Mix 2 (with additional 0.5% dry bentonite added) were 98.3 lb/ft<sup>3</sup>, 106 lb/ft<sup>3</sup>, and 118 lb/ft<sup>3</sup>, respectively.
- 4) The final bulk density values of Mix 1, Mix 2, and Mix 2 (with additional 0.5% dry bentonite added) were 125 lb/ft<sup>3</sup>, 124 lb/ft<sup>3</sup>, and 134 lb/ft<sup>3</sup>, respectively.
- 5) For Mix 1, hydraulic conductivity values ranged from  $2.1 \times 10^{-7}$  to  $2.4 \times 10^{-7}$  cm/sec at 20° C. The average hydraulic conductivity was  $2.2 \times 10^{-7}$  cm/sec.
- 6) For Mix 2, hydraulic conductivity values ranged from  $1.1 \times 10^{-7}$  to  $1.2 \times 10^{-7}$  cm/sec at 20° C. The average hydraulic conductivity was  $1.1 \times 10^{-7}$  cm/sec.
- 7) For Mix 2 (with additional 0.5% dry bentonite added – i.e., total of 1% dry bentonite), hydraulic conductivity values were less than the  $1 \times 10^{-7}$  required value and ranged from  $3.7 \times 10^{-8}$  to  $4.0 \times 10^{-8}$  cm/sec at 20° C. The average hydraulic conductivity was  $3.9 \times 10^{-8}$  cm/sec. The fines content of the tested samples was 39.2% by weight.

Based on these results, Backfill Mix 2 (with a total of 1% dry bentonite) was selected for the mix design. In addition, this sample was also designated for long-term permeability / compatibility testing as detailed below.

### **3.4.2 Phase II Laboratory Testing**

Long-term compatibility testing was performed on Backfill Mix 2 (with a total of 1% dry bentonite) sample as established in the Phase I testing and using site contaminated groundwater as the permeant. The testing simulated the performance of the backfill over the intended design life of the barrier. A minimum of two permeability tests were performed and consisted of one backfill sample permeated with site groundwater and one control sample using DI water as the permeant. Each sample was tested at a gradient sufficient to push a minimum of one pore volume through the sample over approximately one and a half months of permeation. At the completion of testing, the daily measured permeability and plots of flow versus time for each sample were reported. The laboratory results of the long-term compatibility testing are summarized as follows:

- For the long-term testing of Mix 2 (with additional 0.5% dry bentonite added), hydraulic conductivity values were less than the  $1 \times 10^{-7}$  required value and ranged from  $8.2 \times 10^{-8}$  to  $8.7 \times 10^{-8}$  cm/sec at 20° C. The average hydraulic conductivity was  $8.5 \times 10^{-8}$  cm/sec.

## **4.0 SOIL BENTONITE BARRIER WALL CONSTRUCTION ACTIVITIES**

The following is a description of the major elements associated with the construction of the barrier wall. These activities were completed by Sovereign between July 23, 2012 and November 20, 2012. For the implementation of this effort Sovereign subcontracted the following firms:

Construction Contractor: Moretrench American Corporation (Moretrench), of Rockaway, NJ responsible for the excavation and installation of the soil/bentonite wall construction



Engineering Consultant: AMEC of Portland, ME, who were engineer-of-record and responsible for the geotechnical engineering oversight of the soil bentonite slurry wall.

#### **4.1 Submittals**

During implementation of the SHL barrier wall NTCRA activities, construction-related required submittals were made to the USACE for review and approval under a USACE Engineering Form 4025. The submittal packages contained information pertaining to materials utilized during construction of the barrier wall. Copies of submittal packages are included as **Appendix A**.

#### **4.2 Pre-mobilization**

On July 19, 2012 a pre-construction meeting with USACE representatives and the Sovereign project team was conducted to discuss the barrier wall construction approach, define project requirements and expectations, and ensure that all team members understood applicable roles and responsibilities. Prior to mobilization, Sovereign’s subcontractor coordinated utility clearances. No further Federal or State permits were required.

#### **4.3 Mobilization**

After pre-mobilization requirements were completed, equipment and personnel were mobilized to the site to prepare and organize for construction activities. Mobilization activities were conducted from July 23 to August 13, 2012. All on-site personnel were trained and had the necessary certifications in accordance with the Site Safety and Health Plan (SSHP) (Sovereign, 2011a). The tasks for mobilization included, but were not limited to, the following:

- Review of the Activity Hazard Analysis (AHA) for the activities that were conducted for that day with site personnel in accordance with the SSHP;
- Inspection and transport of heavy construction equipment, slurry plant equipment, frac-tanks, tool containers, and generator to the site;
- Installation of temporary facilities including an office trailers and sanitary facilities. Temporary power was provided to the office trailers by a diesel powered generator; and
- Established traffic control procedures.

#### **4.4 Site Preparation**

Site preparation activities were conducted in conjunction with mobilization activities from July 23 to August 13, 2012. The tasks for site preparation included the following:

##### ***4.4.1 Pre-construction Survey***

On July 23, 2012 a detailed pre-construction survey of the removal action work area was completed by WSP SELLS Transportation and Infrastructure of Nashua, New Hampshire (WSP SELLS). The pre-construction survey included location and elevations of structures within the work area including existing long term monitoring wells as well as landfill surface drainage



features along with the characterization existing conditions including ground surface topography in the vicinity of the work area. As part of the pre-construction survey the barrier wall alignment was staked out by the surveyor every fifty (50) feet from station 0+00 on the southern end of the wall to station 8+50 on the northern end. Additionally 10 foot offsets to the east of the barrier wall alignment and 60 foot offsets to the west of the barrier wall alignment were staked by the surveyor to establish the horizontal limits of the working platform. Station locations were staked every twenty (20) feet along the east side of the barrier wall alignment from station 0+00 to station 8+50.

#### ***4.4.2 Access Road Upgrade and Haul Road Construction***

The existing landfill access road was upgraded in areas, as necessary to accommodate heavy vehicle traffic, from the Cook Street entrance extending to the northern portion of the barrier wall. Upgrades included the grading and filling of any uneven portions of the access along with the application of additional 1 ½ inch processed gravel to the road surface. Processed gravel was received from Powell Stone and Gravel in Lunenburg, MA. A new haul road was constructed by the barrier wall construction contractor, Moretrench, between the barrier wall and the staging area for equipment transportation and material hauling. The new haul road consisted of a sand and gravel surface underlain by a geomembrane.

#### ***4.4.3 Staging Area Construction***

An approximate 10,000 square foot area consisting of sand and patches of grass located approximately 300 feet southeast of the barrier wall was grubbed and graded by Sovereign’s subcontractor – Moretrench, to function as the staging area for the removal action. The staging area housed office trailers, slurry plant equipment, frac-tanks, tool containers, and a diesel generator. The staging area was also used for the storage of bentonite supplies. Bentonite was stored on site within sealed pallets containing 50 pound bags along with sealed 2,800 pound bulk bags. A combination of approximately 2,100 feet of four and six inch high-density polyethylene (HDPE) piping was fused and installed from the fire hydrant on Cook Street to slurry plant located in the staging area, to provide the required volume of water for slurry wall mixing operations. A backflow preventer was obtained from and installed by the Devens Water Department prior to the connection of the HDPE piping to the fire hydrant.

#### ***4.4.4 Erosion and Sedimentation Control***

To mitigate the spread of excavated soils and bentonite-water slurry to water drainage courses and Plow Shop pond during project construction activities, erosion and sedimentation (E&S) control measures were installed prior to the commencement of any earthwork activities. An augmented siltation fence (combination of hay bale and silt fence) was installed east and down-slope of the barrier wall between the barrier wall and Plow Shop Pond from Stations 2+50 to 7+00. The installation of siltation fence was not required east of the remaining portions of the barrier wall as elevation of the ground surface was greater than the barrier wall in these areas. At the top and east side of the barrier wall working platform, a slurry control berm, constructed of common borrow, was installed to mitigate overflow and splashing of slurry from leaving the working platform.



#### **4.4.5 Working Platform Construction**

Construction of the barrier wall required that a constant elevation be maintained at the ground surface. As part of site preparation activities, a level surface (or working platform) capable of supporting heavy construction loads (e.g. large tracked excavator, dozers and loaders) was constructed by the Moretrench. The working platform was constructed to an area approximately 40 feet wide which included a 10-foot wide portion to the east of the barrier wall alignment and a 30-foot wide section to the west of the barrier wall alignment and extended approximately 50 feet south and north of Stations 0+00 and 8+50. The working platform was constructed with borrow from an existing soil stockpile located near the staging area as instructed by the USACE. Borrow was mined from the existing soil stockpile with the use of an excavator and all large boulders were removed from the mined material prior to use in the construction of the working platform. Prior to the placement of the borrow material the working platform area was grubbed and stripped of topsoil.

#### **4.5 Barrier Wall Installation Activities**

Barrier wall installation activities consisted of the construction of a soil-bentonite barrier and capping of the barrier. The soil-bentonite barrier was constructed using a slurry trench method of construction. Capping of the soil-bentonite barrier to complete the barrier wall consisted of two types:

- Capping of the barrier outside the landfill limits using a woven geotextile and low-permeability backfill; and
- Capping of the barrier within the landfill using a woven geotextile and low-permeability backfill followed by repair of the landfill cap system over the barrier.

Soil-bentonite barrier construction methods and details as well as capping details are described in the following subsections.

##### **4.5.1 Slurry Wall Installation**

The soil-bentonite barrier wall was constructed using a slurry trench method of construction, in which a narrow and deep linear trench was excavated through the overburden soils until bedrock was encountered. During excavation, the trench is filled with a bentonite-water slurry, which maintains a positive outward pressure on the trench sidewalls and maintains stability of the trench. The soil-bentonite barrier is then completed by placing low permeability soil (native and imported soil blend) to achieve a soil-bentonite mixture with hydraulic conductivity lower than the design value ( $1.0 \times 10^{-7}$  cm/sec). Slurry wall installation activities were conducted from August 15 through September 13, 2012.

Excavation and installation of slurry trench was completed by Moretrench with the use of a Caterpillar 375 excavator equipped with a long-stick and boom attachment and a 2.5 feet wide “V” shaped rock bucket with multiple ripping teeth. Prior to the commencement of excavation activities station locations were established along the barrier wall alignment every ten (10) feet from station 0+00 to station 8+50. These “stations” were established along the barrier wall





alignment to designate specific points at which soundings of the excavation would be taken throughout slurry wall installation activities as required by the specifications. In order to ensure clean contact with competent bedrock throughout the entire excavation of the trench, Sovereign requested that Moretrench supersede the specifications by establishing stations every 10 feet instead of specified 20 feet at which soundings would be taken and refusal determined during construction of the slurry wall. In order to reach the desired depth at station 0+00 and to allow for a gradual transition of backfill, a lead in trench with the bottom sloped between 1H:1V and 2H:1V (horizontal to vertical) was excavated from station 0+25 to station 0+00. Starting at station 0+00 the trench was excavated through the overburden and completed to the top of competent bedrock at each ten foot station. Refusal was defined as the depth at which a minimum of three (3) passes of the excavator bucket resulted in less than 0.1 feet or less of advancement of the excavation using full downward pressure of the excavation equipment. The following procedure was used at each 10foot station from station 0+00 to station 8+50 in order to determine that a competent bedrock surface had been encountered:

- Once it was apparent that the bedrock surface had been encountered from observations of the trench cuttings and “reaction of the excavator,” a preliminary manual sounding was taken at the station using a weighted tape to confirm that the depth was similar to the estimated depth that was developed based on the results of the pre-design investigations (i.e., borings and seismic refraction survey results).
- Following the initial sounding, three to five more passes with the excavator bucket were completed followed by a second sounding.
- Results of the second sounding were compared to the results of the first sounding. If the results were not within 0.1 feet, an additional three to five passes were made with the excavator bucket followed by an additional sounding.
- Sets of three to five additional passes were made until back-to-back soundings were within 0.1 feet of each other and it was the determination of the AMEC engineer, based on sounding results, observation of cuttings, along with the reaction of the excavator, that refusal at competent bedrock had been reached for that particular station.
- The depth at which refusal was determined by AMEC engineer was then recorded by Sovereign on-site QC manager as “Final Trench Depths” in the Contractor’s Quality Control Reports (QCR) and used to construct an as-built profile of the refusal (bedrock) surface elevation.

USACE representatives were on-site periodically throughout excavation and installation of the slurry trench to conduct construction progress inspections during which refusal criteria procedures were witnessed. During inspections USACE representatives were in concurrence with refusal criteria procedures being utilized.

As mentioned above, during construction of the barrier wall an as-built vertical profile of the refusal (bedrock) surface elevation was constructed utilizing the refusal determinations at each ten foot station as described above. The on-going as-built vertical profile was compared to the Interpretive Subsurface Profile Along Vertical Hydraulic Barrier (Sheet 6, 100% Design Submission) of the RAWP throughout construction activities. The Interpretive Subsurface Profile Along Vertical Hydraulic Barrier (Sheet 6, 100% Design Submission) was a profile that was extrapolated from a series of borings spaced approximately 100 feet apart in the vicinity of



the barrier wall alignment. These borings also had lateral off-sets in the east-west direction from the final barrier wall alignment ranging from 0 to 56 feet. The anticipated bedrock topography depicted on the Interpretive Subsurface Profile Along Vertical Hydraulic Barrier of the RAWP was therefore extrapolated from these borings. Considering both the spacing of the borings and the off-sets, the subsurface conditions encountered during the construction of the barrier wall are generally consistent with anticipated subsurface conditions. Certain variation is expected as bedrock topography can be affected locally by former tectonic shear zones, artifacts from glaciation and erosion, among other factors. A final As-built Barrier Wall Profile is included as **Figure 3**.

Throughout the excavation of the trench a bentonite-water slurry, exhibiting an initial unit weight of approximately 64 pounds per cubic foot (pcf), was pumped from the mixing tanks and into the trench to provide trench stability. During excavation activities the slurry level in the trench was maintained by Moretrench with the combination of introducing additional slurry from the mixing tanks to the trench or the addition of backfill material in completed trench areas. The slurry level was kept as close to the working platform surface as was practical and was not allowed to drop below a level of more than three feet below the working platform surface.

Slurry unit weight generally increases with increased suspension of excavated material (up to 90 pcf or greater). A maximum unit weight of 90 pcf is typical for this application, and deposition of material would not be expected to occur at slurry unit weights below this value. As detailed in **Section 6.1.2** on-site field testing of the slurry was conducted twice per a work shift prior to placement in the trench and three (3) times per a work shift on slurry from within the trench excavation to monitor unit weight of the slurry. The 90 pcf unit weight was considered an action level, where adjustments were made to the slurry if the 90 pcf unit weight value was exceeded during on-site field testing. Potential deposition of material was also monitored by daily measurement of the trench depth and compared to previously measured values as detailed in **Section 6.1.2**.

During trenching operations batches of low-permeability backfill consisting of excavated overburden native soils from the trench supplemented with approximately 50 percent imported plastic silt/clay fines and approximately 1.5 percent bentonite were mixed alongside the southern portion of the trench. Backfill mixing was conducted in an area of the site outside the limits of the existing landfill cap limit, to reduce the amount of heavy machinery atop of the existing landfill cap. Each backfill batch was approximately 100 cubic yards (cys) and was mixed by blending of component materials using an excavator with smooth-edged cutting buckets (no teeth) and a loader. During blending operations the backfill batches were hydrated with slurry from the mixing tanks and mixed to ensure homogeneity consistent with the backfill mix design. Following mixing/blending of each backfill batch, as detailed in **Section 6.1.2**, samples were collected from each backfill batch for on-site and submitted for off-site QC testing prior to placing the backfill batch in the trench excavation to ensure backfill would exhibit a hydraulic permeability of at least  $1 \times 10^{-7}$  cm/sec.

Low-permeability backfill was placed into the trench excavation with the use of a loader. Backfill was placed continuously from the beginning of the trench in the direction of the



excavation starting initially by lowering the backfill into beginning of the lead-in trench. Additional backfill was then placed in the trench in a manner such that the backfill entered the trench by sliding down the face of the previously placed backfill. Backfill was mounded approximately two feet above the working platform grade to accommodate consolidation.

#### **4.5.2 Slurry Wall Capping**

Barrier wall capping activities were completed from September 20 through September 26, 2012 and consisted of the placement of a low-permeability backfill above the soil-bentonite backfill (barrier wall).

The barrier wall was capped after removal of the working platform by excavation of the soil-bentonite backfill down to depth of approximately two feet below preconstruction grade. The soil-bentonite backfill and sides of the excavation were lined with a woven geotextile (TenCate Mirafi 600X) as a separator. Pins were installed into the sidewalls of the barrier wall trench every 20 feet or more as needed to secure the geotextile to the trench sidewalls. An overlap with a minimum width of 24 inches was used at the joint of the geotextile. Following the installation of the geotextile the trench was backfilled with two feet of a low-permeability backfill placed in loose lifts not exceeding 12 inches and compacted with an excavator bucket to achieve a stable lift of material without disturbing the soil-bentonite backfill sub-grade. The low-permeability backfill was then covered with at least six inches of sandy soils. Slurry wall capping details are presented on **Figure 4**.

During barrier wall capping activities quality control (QC) samples of the low-permeability backfill were collected for off-site laboratory analysis. Details of QC sampling and results are detailed in **Section 6.1.2**.

#### **4.5.3 Landfill Liner Repair**

A geomembrane patch was installed atop the barrier wall cap as a portion of the existing landfill liner was removed during removal action activities to allow for the construction of the slurry wall. Prior to the installation of a new geomembrane patch, the existing liner was exposed approximately five (5) to eight (8) feet on each side the barrier to check for any additional damage to the existing liner that may have occurred during construction of the slurry wall. In addition the surface to be covered by the geomembrane was cleared of sharp objects, angular stones, sticks, or any materials that may contribute to punctures or tearing of the geomembrane material.

Landfill liner repairs were conducted by Terrafix Environmental U.S.A. Inc. of Lewiston, Maine (Terrafix) on October 5 and 9, 2012. The geomembrane patch was constructed of Solmax International Solmax-240 40 mil PVC. All geomembrane repair seams were at a minimum two (2) inches wide and constructed using a chemical fusion weld. Prior to the application of the chemical fusion agent both the existing landfill liner and the new PVC were cleaned of all dust, dirt, debris and excess moisture. The two PVC materials were compressed together with a roller until a thin excess of the chemical fusion agent was forced out of the seam and a bond was formed. Following the completion of landfill liner repairs, the repaired areas were backfilled with one (1) foot of drainage sand prior to top-dressing the area with sandy soils. During landfill liner repair activities, destructive QC samples of chemically welded seams were

collected and submitted to an off-site testing facility. Details of QC sampling and results are detailed in **Section 6.2**.

## **4.6 Site Restoration and Demobilization**

### **4.6.1 Site Restoration**

Upon completion of the barrier wall installation and landfill liner repairs site restoration activities were conducted in areas of the SHL that were disturbed during barrier wall construction activities, which totaled approximately 2.2 acres. At the request of the USACE, excavated soils containing no landfill waste and the working platform were re-graded into the existing disturbed area, while ensuring that grades were achieved to allow for proper drainage off the landfill. Additionally the drainage swale located between barrier wall station 2+50 and station 3+00 disturbed during barrier wall construction activities was re-constructed to match pre-construction conditions. During the construction of the barrier wall approximately 500 cys of landfill waste-laden soils containing plastic, wood, metal and concrete were encountered. As part of site restoration activities all waste was segregated from the soils and properly disposed of off-site at appropriate receiving facilities. Solid waste disposal activities are detailed in **Section 5.1**.

At the request of the USACE, no top soil was applied to the disturbed areas. The disturbed areas were top-dressed with sandy subsoil material and power-raked to remove all rocks greater than six inches. A warm season grass mix as requested by the USACE, following coordination with the Natural Heritage and Endangered Species Program (NHSEP) of the MA Division of Fisheries and Wildlife, and consisting of the following was applied to all disturbed areas via hydroseeding on October 25 and November 5, 2012. USACE will monitor the seeded area and submit a monitoring report to NHESP in the Fall of 2013.

| Species/Variety                          | Pounds/Acre<br>Pure Live Seed |
|------------------------------------------|-------------------------------|
| Niagara or Kaw Big bluestem              | 4                             |
| Aldous, Camper, or Blaze Little bluestem | 6                             |
| Rumsey, Osage, or NE-54 Indiangrass      | 2                             |
| Blue false indigo                        | 0.01                          |
| Lance leaved coreopsis                   | 0.05                          |
| Perennial lupine                         | 0.05                          |
| Blackeyed susan                          | 0.1                           |

### **4.6.2 Demobilization**

Demobilization activities for the removal action were initiated on September 13, 2012 with the breakdown of the slurry plant. Breakdown of the slurry plant included the cleaning of the three frac-tanks, disassembly and cleaning of hoses and pumps, disassembly of the slurry plant

electrical system, along with the disassembly of the HDPE piping. All slurry plant components including frac-tanks, pumps, and diesel generator were removed from the site by September 18, 2012. All heavy equipment including excavators, loaders and dozers were removed from site during restoration activities on an as needed basis. All remaining materials and equipment used during the removal action were removed from the site by November 20, 2012.

#### **4.6.3 Piezometer Installation**

In accordance with the RAWP (Sovereign, 2012a), a series of overburden groundwater piezometers were installed along the barrier wall alignment to provide hydraulic performance monitoring of the barrier wall. Well screens for each of the piezometers were set at similar depths across the length of the wall to the extent possible considering the saturated overburden thickness, versus the original plans to set atop the bedrock surface. In addition and given the layout of the barrier wall, ten (10) piezometers rather than eight (8) piezometers were installed to measure the piezometric heads across the barrier wall. The piezometers consisted of five (5) sets of wells (two wells per set), with one point per set located up-gradient of the barrier wall (westerly side) and the other down-gradient (easterly side) of the barrier wall. **Figure 2** displays the locations of the piezometers. The spatial orientation of the piezometers was determined based on both a review of the depth to rock observations documented during the barrier wall construction and based on lateral spacing considerations to allow for a pair at the barrier wall hinge point closest to Red Cove. The piezometers were off-set approximately eight to ten feet from each side (or the edge) of the barrier wall.

The ten (10) piezometers were installed via hollow-stem auger drilling methods at the site by Technical Drilling Services of Sterling Massachusetts (TDS) from October 9 through October 11, 2012. Soils were visually characterized in two-foot sampling lengths until desired depths were achieved. Each piezometer was constructed with ten (10) feet of two-inch diameter PVC well screen, with two-inch PVC riser extending to approximately three feet above final grade. Filter sand was placed around the screen and extended two to three feet above the well point screen. Next, a two-foot thick bentonite seal was installed, followed by grouting the remainder of the void to within two feet of grade, where then a Portland cement grout mixture was emplaced. A six-inch diameter protective steel standpipe with a locking cap was installed around each piezometer extending two to three feet above ground surface. The steel standpipes were buried and grouted at depths ranging from two feet to five feet below grade depending on the depth and presence or absence of the landfill liner.

The piezometer screens were set at similar depths across the length of the wall to the extent possible considering the saturated overburden thickness. In general, there is approximately twenty (20) feet of saturated thickness across much of the wall, with less thickness to the south. As such, piezometers PZ-12-01 through PZ-12-06 were screened in the approximate middle of the overburden saturated zone, with screens averaging approximately four to six feet below the observed static water table, and approximately four to six feet above the top of bedrock. Piezometers PZ-12-07 through PZ-12-10, are situated along the southern portion of the barrier wall, and penetrate less than 10 to 12 feet of saturated overburden thickness. However, the well screen intervals encompass a majority of the overburden saturated zone in that area of the barrier wall.



Following piezometer installation, Sovereign personnel developed each of the wells in accordance with the USEPA Well Development Standard Operating Procedure (SOP) No. 2044 (USEPA, 2001). Groundwater quality parameters monitored during development are attached in **Table 1**. A summary of the piezometer construction information is provided in **Table 2** and within boring logs attached in **Appendix C**.

On November 20, 2012 New England Liner Systems, Inc. of Plantsville, CT completed landfill liner repair around piezometers PZ-12-02 through PZ-12-06. The geomembrane patches were constructed of 40 mil PVC and seamed using a chemical fusion weld. An approximately one foot high section of 40 mil PVC was attached to each steel standpipe at the grade of the existing landfill liner with a chemical agent and secured with a stainless steel clamp. A 40 mil PVC patch was then seamed with the chemical agent to the new PVC material around the standpipe and the existing landfill liner around each piezometer.

#### **4.6.4 Post Construction Survey**

On November 9, 2012 a post-construction survey of the removal action limit of work area was completed by WSP SELLS. The post-construction survey included a topographic characterization of the limit of work area that had been disturbed during removal action construction activities. In addition ground and top of casing elevations of the newly installed piezometers along the barrier wall alignment were characterized as part of the post-construction survey. A post-construction survey plans are included as **Figure 5** and **Figure 6**.

### **4.7 MODIFICATIONS DURING CONSTRUCTION**

#### **4.7.1 Backfill Mix Modifications**

As detailed in **Section 5.1.1**, approximately 500 cys of landfill waste-laden soils were encountered during excavation activities. This reduced the amount of available clean excavated native overburden soil that could be used as part of the low-permeability backfill batches. It was determined by the AMEC engineer that the backfill mix design would be modified to consist of approximately 25 percent excavated soils supplemented with approximately 75 percent imported plastic silt/clay fines. Prior to the use of this modified backfill mix design, a sample was collected from a backfill batch of the 25%/75% design and submitted for off-site testing of permeability (hydraulic conductivity), gradation and fines content. Results of the off-site laboratory testing, included in **Appendix B**, document a permeability of  $8.5 \times 10^{-8}$  cm/sec, which exceeded the required hydraulic permeability of  $1.0 \times 10^{-7}$  cm/sec. Three batches (batch 28 through batch 30) consisted of the 25%/75% design. These batches were used in backfill from approximately station 5+20 to station 6+00.

#### **4.7.2 Site Restoration Modifications**

As detailed in Section 4.6.1, at the request of the USACE, excavated soils containing no landfill waste and the working platform were re-graded into the existing disturbed area, while ensuring that grades were achieved to allow for proper drainage off the landfill. Additionally, at the request of the USACE, no top soil was applied to the disturbed areas. The disturbed areas were



top-dressed with sandy subsoil material and power-raked to remove all rocks greater than six inches. A warm season grass mix as requested by the USACE, following coordination with the NHSEP was applied to all disturbed areas via hydroseeding.

#### **4.7.3 Piezometer Installation Changes**

As detailed in **Section 4.6.3**, given the layout of the barrier wall, ten (10) piezometers rather than eight (8) piezometers were installed to measure the piezometric heads across the barrier wall. The piezometers consisted of five (5) sets of wells (two wells per set), with one point per set located up-gradient of the barrier wall (westerly side) and the other down-gradient (easterly side) of the barrier wall. Well screens for each of the piezometers were set at similar depths across the length of the wall to the extent possible considering the saturated overburden thickness.

### **5.0 WASTE DISPOSAL**

#### **5.1 Solid Wastes**

##### ***5.1.1 On-site Stockpiling of Landfill Waste-laden Soils***

During the construction of the barrier wall approximately 500 cys of landfill waste-laden soils were encountered. Landfill waste included plastic, wood, metal and concrete. Excavated landfill waste-laden soils were temporarily stockpiled on polyethylene sheeting to minimize any potential impact to underlying natural materials until barrier wall excavation activities were completed. Storm water controls for the protection of the stockpile included silt fencing placed around the perimeter of the stockpile to prevent storm water runoff or run-on.

In order to determine the appropriate method of disposal of landfill waste-laden soils, a composite waste classification sample was collected and analyzed for COMM97 disposal criteria by Accutest Laboratories of Marlborough, Massachusetts (Accutest). The composite sample waste sample was analyzed for the following parameters:

- Total Volatile Organic Compounds (VOCs) - USEPA Method 8260B
- Total Semivolatile Organic Compounds (SVOCs) - USEPA Method 8270C
- Total Petroleum Hydrocarbons (TPH) - USEPA Method 8015
- Total Polychlorinated Biphenyls (PCB) - USEPA Method 8082
- Resource Conservation and Recovery Act (RCRA) 8 Metals
- Specific Conductivity

##### ***5.1.2 Screening and Disposal of Waste***

In order to minimize the amount of material that would be required to be disposed of off-site the stockpile of waste-laden soils was screened with the use of mechanical screener. Following screening operations the following three separate stockpiles were constructed and encompassed with erosion controls, generally consisting of silt fence:

- one consisting of clean excavation soil,

- one consisting of waste/soil,
- and one consisting of excavated concrete debris;

On November 20, 2012 the stockpile consisting of landfill waste/soil was loaded into a single truck trailer for removal from the site by The Environmental Quality Company - Northeast of Wrentham, Massachusetts (EQNE). The landfill waste/soil was transported by Goulet Trucking of South Deerfield, Massachusetts (Goulet) under a certified Material Shipping Record (MSR) to Casella Waste Systems Southbridge Landfill in Southbridge, Massachusetts for disposal.

Additionally, the stockpile of concrete blocks was loaded into one tri-axial dump truck for removal from the site by EQNE. The concrete blocks were transported by Goulet to Boro Sand & Gravel in North Attleboro, Massachusetts for recycling/disposal. For all wastes transported for off-site disposal, applicable State and Federal regulations were followed during transport activities. Final excavation waste disposal documentation, including Receiving Facility MSR acknowledgements and associated weight slips are presented in **Appendix D**.

The waste generated, associated quantities transported for off-site disposal, and the respective disposal facilities are presented below:

#### Summary of Wastes Disposed Off-Site

| Waste Material        | Classification | Quantity   | Disposal/Recycling Facility & Location                          |
|-----------------------|----------------|------------|-----------------------------------------------------------------|
| Municipal Solid Waste | Non-Hazardous  | 25.17 tons | Casella Waste Systems<br>Landfill<br>Southbridge, Massachusetts |
| Concrete              | Non-Hazardous  | 14.70 tons | Boro Sand and Gravel<br>North Attleboro,<br>Massachusetts       |

## 5.2 Liquid Wastes

No liquid wastes were encountered during the soil/bentonite wall construction activities. Purge water was generated during the development of the piezometers. In accordance with Massachusetts Contingency Plan (MCP) regulations, piezometer purge water was disposed of at the ground surface in close proximity to each wellhead location from which it came. No containerization and off-site disposal of liquid wastes was necessary during remedial activities.





## **6.0 PERFORMANCE STANDARDS & QUALITY CONTROL (QC)**

In accordance with the quality control standards set forth in the RAWP (Sovereign, 2012a), Sovereign implemented the Contractor Quality Control Plan (CQCP) to provide a programmatic method for assuring that the required levels of quality are consistently achieved for all off-site and on-site project operations, including work completed by Sovereign and its subcontractors and vendors. This plan addressed each component of the Construction Quality Control (CQC) system, including responsibility and authority of project personnel, inspection programs, inspection activities, monitoring tests and observations, submittals procedure, and documentation and reporting requirements.

The CQC system was implemented by using a three-phase process for all project Definable Features of Work (DFWs). A DFW is a task that is separate and distinct from all other tasks and has a specific set of quality control requirements (e.g., construction of working platform). All DFWs were controlled during execution using the three phases of control discussed and presented in the CQCP and underwent a completion inspection at the conclusion of the work associated with the DFW. The DFWs for the SHL Barrier Wall included the following:

- Mobilization / Site Preparation
- Construction of Working Platform
- Penetration of the Landfill Liner
- Soil-Bentonite Wall Construction
- On-Site Stockpiling of Excess Soil Materials
- Installation of Piezometers
- Repair of Landfill Liner
- Site Restoration / Demobilization

The DFWs were implemented by Sovereign, following the three-phase quality control system: including a Preparatory Phase, an Initial Phase, and a Follow-Up Phase, as described in the CQCP. Representatives of the USACE were on-site to participate in three-phase inspections as well as to conduct inspections of the removal action activities at regular intervals and convey any concerns or discrepancies to the on-site Sovereign management. Separate additional on-site visits were conducted by MassDEP and USEPA to measure progress during the removal action activities.

### **6.1 Barrier Wall Installation Quality Control**

#### ***6.1.1 Inspection, Care, and Protection of Delivered Materials***

All delivered materials to the site were inspected upon arrival by the On-Site Quality Control Manager (QCM). Inspections of major materials delivered to the site including, imported fines, bentonite, geotextile fabric, and landfill liner repair materials were inspected to ensure the following:



- All proper paperwork accompanied the materials (packing slips, bill-of-lading, etc.);
- The delivered materials corresponded to the submittals (i.e., type, size, quantity, etc.);
- The delivered materials were free of defects and damage; and,
- Materials were appropriately handled, stored, and protected during shipment and delivery and off-loading.

Documentation of inspections of delivered major materials was included in daily Contractor’s Quality Control Report (CQCRs).

Additionally the On-Site QCM was responsible for ensuring that all materials such as bentonite, geotextile fabric, and landfill liner repair materials were properly stored and protected from weather, moisture, wildlife, or other conditions adverse conditions that had the potential to degrade the quality delivered materials. Stored materials were routinely inspected by the On-Site QCM.

#### ***6.1.2 Field Quality Control Tests During Slurry Wall Installation***

During slurry wall installation activities conducted between August 15 and September 13, 2012 specific field QC tests as defined by CQCP (Sovereign, 2011a) were performed by the AMEC Earth and Environmental Inc. (AMEC) and Moretrench engineers.

During slurry wall installation activities specific on-site field tests such as viscosity, density, filtrate loss and pH were conducted on samples of slurry collected from within the mixings tanks prior to placement in the trench excavation and from within the trench excavation. Field tests of viscosity, density, filtrate loss and pH (API 13B-1) were conducted twice per work shift on samples of slurry prior to placement in the trench excavation. Samples of slurry from within the trench excavation were collected three (3) times per work shift for field testing of viscosity, density, and filtrate loss (API 13B-1). As discussed in **Section 4.5.1**, results of on-site slurry testing were compared to action levels set by project specifications. In the event that results of on-site slurry testing were outside of the action levels, proper adjustments to the slurry within the trench were made by Moretrench to return the characteristics of the slurry back to below actions levels, accomplished by the addition of fresh slurry from the mixing frac-tanks into the trench. All results of on-site QC slurry testing were found by the AMEC project engineer to be acceptable and meet the required project criteria. Results of on-site slurry field testing are included in **Appendix E**.

On-site field testing and off-site laboratory testing of soil-bentonite backfill batches was completed during slurry wall installation activities to ensure that all backfill batches would exhibit a hydraulic permeability of at least  $1 \times 10^{-7}$  cm/sec. Specific on-site field tests of backfill mixes included slump (ASTM C 143), density (API 13B-1) and fines content (ASTM C 117). These on-site field tests were completed once per a backfill batch, approximately 100 cys. A total of 40 low-permeability backfill batches were used to complete the construction of the barrier wall.

Additionally, samples of backfill mixes were collected for off-site laboratory testing of hydraulic conductivity (ASTM D 5084-90) and particle size analysis (ASTM D 422-63). These samples





were collected at a minimum frequency of one (1) sample per every 300 cys of backfill. Approximately 3,430 cys of backfill was used to complete the construction of the barrier wall. A total of 18 samples of low-permeability backfill were sent for off-site laboratory testing. Results of off-site backfill mix testing documented that all 18 backfill mix samples met the required hydraulic conductivity of at least  $1 \times 10^{-7}$  cm/sec. Off-site laboratory testing was completed by GeoTesting Express of Acton, Massachusetts (GeoTesting Express). Results of on-site backfill mix testing are included in **Appendix E**. Results of off-site backfill mix testing are included in **Appendix F**.

Throughout slurry wall installation activities trench excavation and soil-bentonite backfill soundings were taken daily at the beginning and end of each work shift to determine the location and slope of the backfill. These soundings were taken every 10 feet along the trench centerline using a weighted tape and measured to the nearest 0.1 feet by the Moretrench and AMEC engineers. Results of soundings are noted as “Backfill Slope – Start of Shift” and “Backfill Slope – End of Shift” within Moretrench QC Reports included in **Appendix E**. Construction profiles indicating the extent of excavation and the soil-bentonite backfill profile at the beginning and end of each work shift as determined from daily trench soundings were also kept by Moretrench. Moretrench construction profiles are included in **Appendix G**.

As detailed in **Section 4.5.1**, an as-built profile of the refusal (bedrock) surface elevation (bottom of slurry wall as measured from the working platform during excavation activities) was continuously maintained throughout slurry wall installation activities and compared to anticipated refusal depths as indicated by the results of pre-construction subsurface investigations. A final as-built profile of the elevation of the top of the refusal (bedrock) surface is included as **Figure 3**.

It should be noted that on 8/29/12, Sovereign, AMEC, and the USACE consulted and evaluated the shallower refusal depth encountered at station 4+50. As part of this evaluation, boring logs and working platform elevations were reviewed and rechecked in detail. It was concurred that the area of weathered bedrock indicated on the Interpretive Subsurface Profile Along Hydraulic Barrier (Sheet 6, 90% Design Submission) was extrapolated from two (2) boring logs in the vicinity of station 4+50. Boring SHL-11-02 had indicated evidence of weathered bedrock. Boring SHL-11-02 had an approximate off-set of twenty (20) feet from the barrier wall alignment. Boring SHL-12-06 which has an approximate off-set of zero (0) feet from the barrier wall alignment did not indicate evidence of weathered bedrock and a depth of bedrock at 42 feet below ground surface (bgs). Moretrench was unable to excavate deeper than 39.4 feet bgs at station 4+50 following two and half hours of ripping on the station. Additionally, at the direction of the Engineer, Moretrench worked the station from both directions of the vertex with the excavator. It was determined in the field by Sovereign, AMEC, and the USACE, that Moretrench would work the area for another half an hour the following day and if no progress in a downward trend was made then it would be determined that refusal at station 4+50 had been met. This was completed and Moretrench was not able to excavate past 39.4 feet bgs. Based on the efforts employed and the analysis of the boring logs and geophysical survey, the Engineer was satisfied that we reached competent rock, and therefore the excavation in this area was considered complete and met the specified design criteria.



### **6.1.3 Quality Control Tests During Barrier Wall Cap Installation**

During barrier wall capping activities three (3) QC samples of the low-permeability borrow used to cap the soil bentonite slurry wall (one per every 50 cubic yards) were collected and submitted to GeoTesting Express for off-site laboratory analysis of hydraulic conductivity (ASTM D 5084-90) and particle size analysis (ASTM D 422-63). Results of the sampling documented low-permeability borrow cap hydraulic conductivity values of the three (3) samples at  $7.9 \times 10^{-8}$  cm/sec,  $2.5 \times 10^{-8}$  cm/sec, and  $2.9 \times 10^{-6}$  cm/sec. An average value of  $1.0 \times 10^{-6}$  cm/sec was calculated for the low-permeability borrow cap, meeting the  $1.0 \times 10^{-6}$  cm/sec hydraulic conductivity specification for the material. Copies of the geotechnical laboratory reports are included in **Appendix H**.

## **6.2 Landfill Liner Quality Control**

During landfill liner repair activities conducted on October 5 and 9, 2012 three (3) destructive QC samples of chemically welded seams (one per every 300 linear feet) were collected and submitted to GeoTesting Express for off-site laboratory analysis of Peel and Shear Strength (ASTM D 6392). Results documented Peel Strength values of the three (3) samples at 35, 25, and 31 pounds/inch (lb/in). Results documented Shear Strength values of the three (3) samples at 57, 55, and 57 lb/in. Results of the all landfill liner repair destructive sample testing exceeded specification values. Copies of the destructive testing laboratory reports are included in **Appendix I**. It should be noted that the minimum peel strength value of 45 lb/defined in specification Section 02736 (Geomembrane) was an incorrect value. After a review of the existing landfill liner by the project Engineer it was determined that the minimum peel strength value should have been defined as 15 lb/in.

## **6.3 Piezometer Installation Quality Control**

During the installation of piezometers along the barrier wall alignment conducted by TDS from October 9 through October 11, 2012 a Sovereign staff geologist was on-site to oversee the installation activities. The Sovereign staff geologist was present to insure that all piezometer installation activities were conducted in accordance with the appropriate plans and specifications.

## **6.4 Health and Safety**

All remedial action field activities were performed in accordance with the requirements of the SSHP (Sovereign, 2011a). Health and safety issues encountered during the implementation of field activities were addressed immediately and recorded in daily CQCRs. Daily safety briefings were held prior to the start of work and included all field personnel. Daily safety inspections were conducted on all heavy equipment prior to use. Periodic safety inspections were carried out by the Sovereign Health and Safety Officer (HSO).

## **6.5 Daily Quality Control Reports**

Sovereign maintained daily Contractor’s Quality Control Reports (CQCR) for every day of construction activities as required in the specifications. The CQCRs included a daily log of

construction documenting the site personnel, the materials received, changes, and the work conducted. The daily CQCRs are presented in **Appendix J**.

## **7.0 DEMONSTRATION OF COMPLETION**

### **7.1 Removal Action Completion**

On November 28, 2012, a final walkthrough and inspection was performed at the SHL in the area of the barrier wall by members of USACE in order to review all site activities and to provide comment and recommendation. There were no comments presented by the USACE during the final inspection and all removal action activities for the installation of barrier wall at the SHL was deemed complete as of November 28, 2012. Associated construction completion inspection documentation is presented as **Appendix K**.

## **8.0 PERFORMANCE MONITORING**

Following the completion of the barrier wall construction activities a performance monitoring program was initiated to document the groundwater hydraulics and hydraulic gradients on the east and west sides of the barrier wall. The piezometers installed along the barrier wall are being utilized for this purpose. Hydraulic monitoring events are being performed on a monthly basis. Four monitoring events were conducted during the month of November 2012. Monitoring events will be conducted once per a month from December 2012 through April 2013. The results of the hydraulic monitoring will be presented in the revised SHL Long Term Monitoring and Maintenance Plan (LTMMMP) update.

## **9.0 PROJECT COST SUMMARY**

The following table presents the approximate cost associated with the design, construction, reporting, and initial hydraulic monitoring included in the RAWP, for the vertical hydraulic barrier (barrier wall) at the SHL.

| <b>SHL BARRIER WALL COSTS</b>                   |           |
|-------------------------------------------------|-----------|
| Planning and Design Costs:                      | \$117,850 |
| Project Management and Meetings Costs:          | \$36,700  |
| Mobilization / Demobilization Costs:            | \$279,100 |
| Site Preparation Costs:                         | \$41,500  |
| Slurry Wall Construction Costs:                 | \$578,700 |
| Cap Construction / Landfill Liner Repair Costs: | \$182,750 |

|                                                         |                    |
|---------------------------------------------------------|--------------------|
| Site Restoration Costs:                                 | \$16,900           |
| Piezometer Installation and Hydraulic Monitoring Costs: | \$68,000           |
| Removal Action Completion Reports Costs:                | \$44,000           |
| <b>Total Barrier Wall Costs:</b>                        | <b>\$1,365,500</b> |

## 10.0 COMMUNITY RELATIONS

Prior to the commencement of NTCRA activities EE/CA (Sovereign, 2012b), an Action Memorandum (AM) (Sovereign, 2012c), and RAWP (Sovereign, 2012a) were prepared in support of this NTCRA and made available to the Base Closure Team (BCT) for comment. Throughout the removal action, the BCT, including representatives from USEPA, MassDEP, MassDevelopment, the Devens Restoration Advisory Board (RAB), and the People of Ayer Concerned about the Environment (PACE), , were kept informed of activities at the site through informational correspondence and monthly meetings. In addition, Sovereign conducted a public information meeting at the site, which included a tour and presentation of the removal action activities being undertaken for all public stakeholders on August 30, 2012.

## 11.0 CERTIFICATION STATEMENT

In accordance with the intents and provisions of the Statement of Work (SOW) issued to Sovereign by the USACE, the physical removal action activities for the installation of barrier wall at the SHL has been completed. The installation of the barrier was completed in accordance with the design and specifications set forth in the RAWP, to provide a low permeable barrier from ground surface to the top of competent bedrock in order to mitigate arsenic-in-groundwater flux from SHL to Red Cove/Plow Shop Pond. Results of the removal actions performance monitoring program will be presented and incorporated in the SHL LTMMP Update in fall 2013.

## 12.0 REFERENCES

AMEC 2011. *Draft Final Remedial Investigation for AOC 72*. Prepared for USACE-NAE. March.

Gannet Fleming, 2006. *Final Expanded Site Investigation: Remedial Oversight of Activities at Fort Devens Plow Shop Pond and Grove Pond*. Prepared for the USEPA Region I. May

Sovereign 2012a. *Final Removal Action Work Plan for Shepley’s Hill Landfill Barrier Wall, Former Fort Devens Army Installation, Devens, Massachusetts*. September.

Sovereign 2012b. *Final Engineering Evaluation/Cost Analysis, Shepley’s Hill Landfill Barrier Wall, Former Fort Devens Army Installation, Devens, Massachusetts*. June.



Sovereign 2012c. *Final Action Memorandum, Shepley’s Hill Landfill Barrier Wall, Former Fort Devens Army Installation, Devens, Massachusetts.* June.

Sovereign, 2011. *Final Shepley’s Hill Landfill Supplemental Groundwater and Landfill Cap Assessment for Long-term Monitoring and Maintenance - Addendum Report.* Prepared for USACE-NAE. August.

USAEC 1995. *Record of Decision, Shepley’s Hill Landfill Operable Unit, Fort Devens, Massachusetts.* Signed by USEPA Region I on September 26, 1995.

USEPA 2001. *SOP #2044 Monitor Well Development.* October.



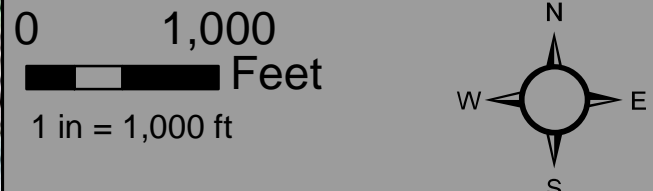
## **FIGURES**





# FIGURE 1 SITE LOCUS

FORT DEVENS  
AYER, MASSACHUSETTS



## Legend

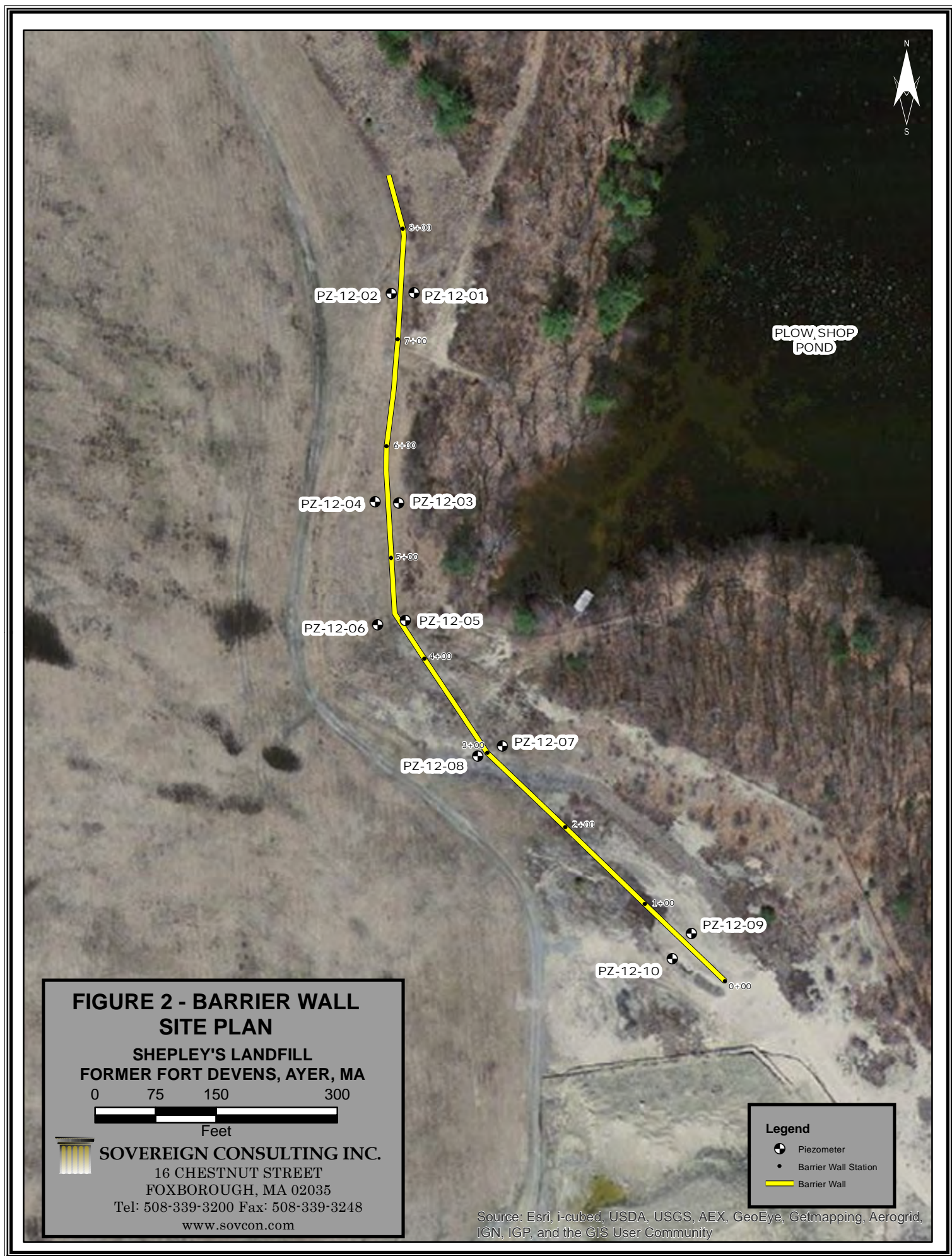
 APPROXIMATE SITE BOUNDARY

NOTES AND SOURCE INFORMATION:  
TOPO: 2009 NATIONAL GEOGRAPHIC SOCIETY, i-cubed  
IMAGERY:ESRI, i-cubed, USDA FSA, USGS, AEX,  
GEO EYE, GETMAPPING, AEROGRI, IGP

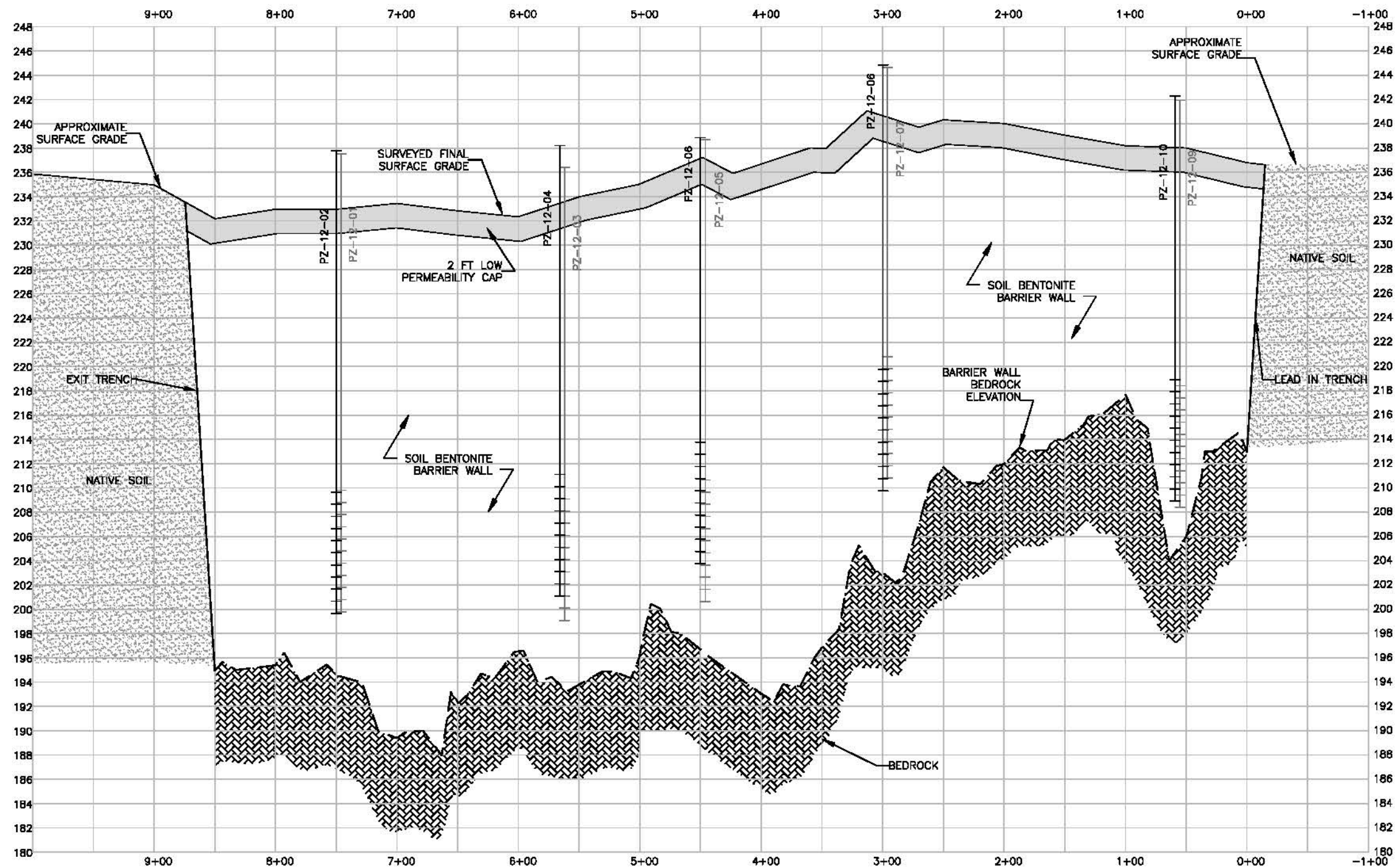
DECEMBER 2010 ROV

 SOVEREIGN CONSULTING INC.  
905B SOUTH MAIN STREET, UNIT 202  
MANSFIELD, MA 02048  
Tel: 508-339-3200  
Fax: 508-339-3248  
[www.sovcon.com](http://www.sovcon.com)









| STA  | WELL     | OFFSET FROM CENTER LINE (FT) | DIRECTION |
|------|----------|------------------------------|-----------|
| 7+50 | PZ-12-01 | 12.72                        | E         |
| 7+50 | PZ-12-02 | 8.21                         | W         |
| 5+70 | PZ-12-03 | 9.64                         | E         |
| 5+70 | PZ-12-04 | 11.70                        | W         |
| 4+50 | PZ-12-05 | 12.27                        | E         |
| 4+50 | PZ-12-06 | 13.82                        | W         |
| 3+00 | PZ-12-07 | 17.31                        | E         |
| 3+00 | PZ-12-08 | 6.51                         | W         |
| 0+60 | PZ-12-09 | 14.04                        | E         |
| 0+60 | PZ-12-10 | 14.78                        | W         |

**LEGEND**

PIEZOMETER SCREEN

PZ-12-01 PIEZOMETER LOCATION

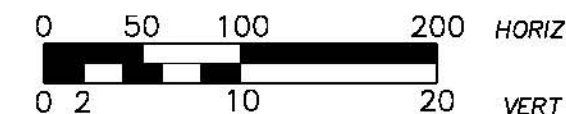
200 ELEVATION

0+00 STATION NUMBER

**NOTES**


1. VIEW FROM WEST

2. SHADED PIEZOMETERS EAST OF BARRIER WALL



### FIGURE 3

**BARRIER WALL AS-BUILT PROFILE**  
**SHEPLEY'S HILL LANDFILL**  
 LOCATED AT  
**FORMER FORT DEVENS ARMY INSTALLATION**  
**DEVENS, MASSACHUSETTS**

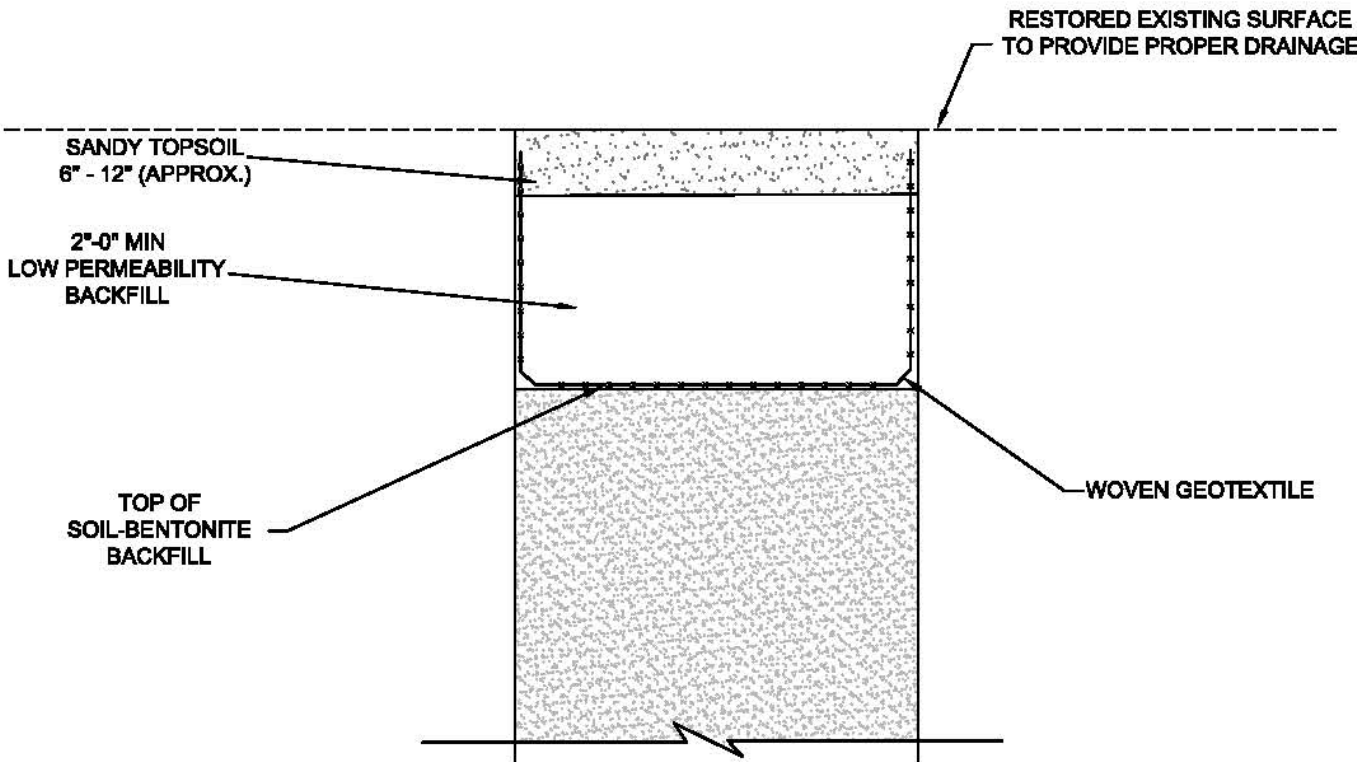


**SOVEREIGN CONSULTING INC.**  
 16 CHESTNUT STREET  
 FOXBOROUGH, MA 02035  
 TEL: (508) 339-3200 FAX: (508) 339-3248

|                                 |                                 |                                  |                |                |
|---------------------------------|---------------------------------|----------------------------------|----------------|----------------|
| PREPARED<br>1/8/2013<br>BY: ASW | UPDATED<br>1/10/2013<br>BY: ROV | UPDATED<br>04/24/2013<br>BY: ROV | UPDATED<br>BY: | UPDATED<br>BY: |
|---------------------------------|---------------------------------|----------------------------------|----------------|----------------|

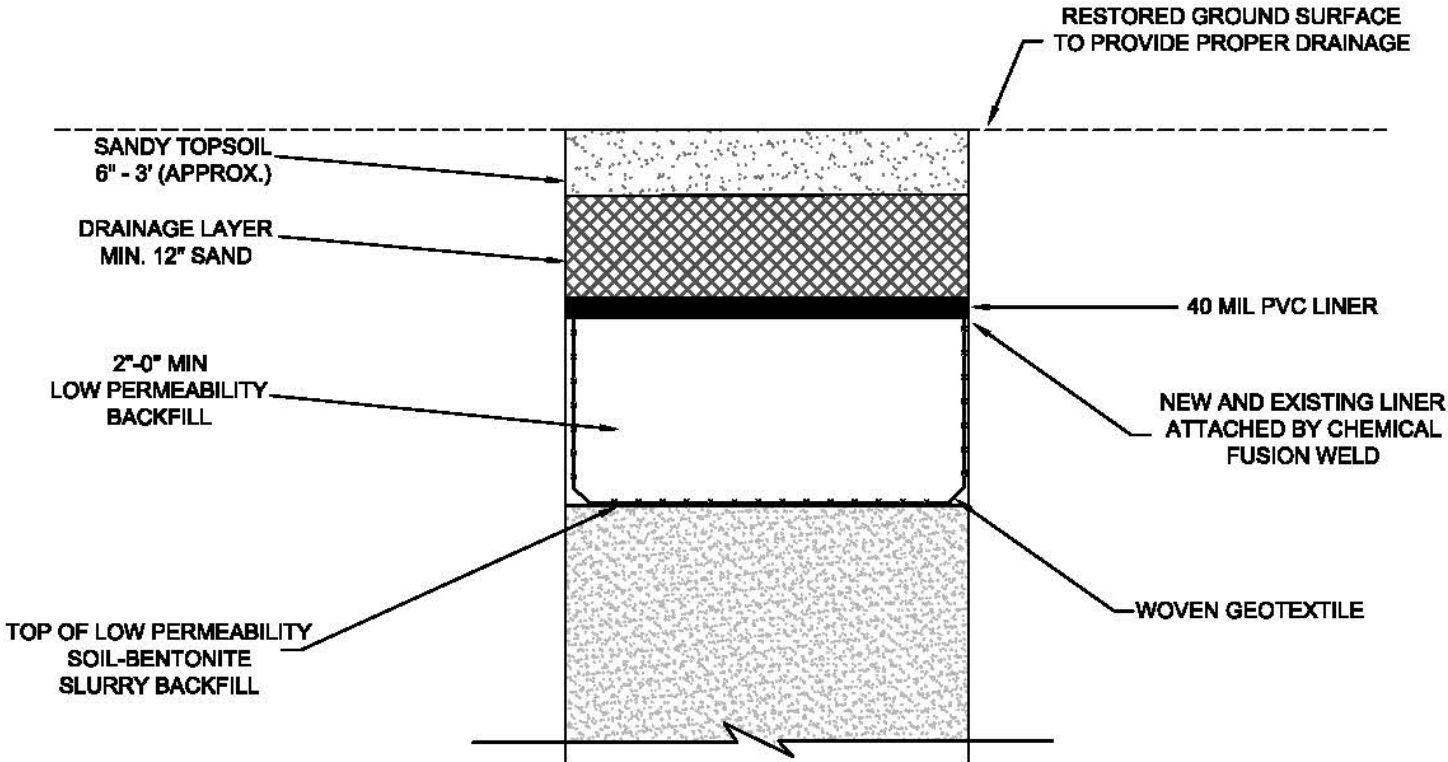
SLURRY WALL CAP DETAIL - OUTSIDE LANDFILL LIMITS  
STATIONS 0+00 TO 0+415

(NOT TO SCALE)



SLURRY WALL CAP DETAIL - WITHIN LANDFILL LIMITS  
STATIONS 0+415 TO 0+850

(NOT TO SCALE)



**FIGURE 4**

**SLURRY WALL CAP  
AS-BUILT DETAIL**

**SHEPLEY'S HILL LANDFILL**

LOCATED AT

**FORMER FORT DEVENS ARMY INSTALLATION  
DEVENS, MASSACHUSETTS**

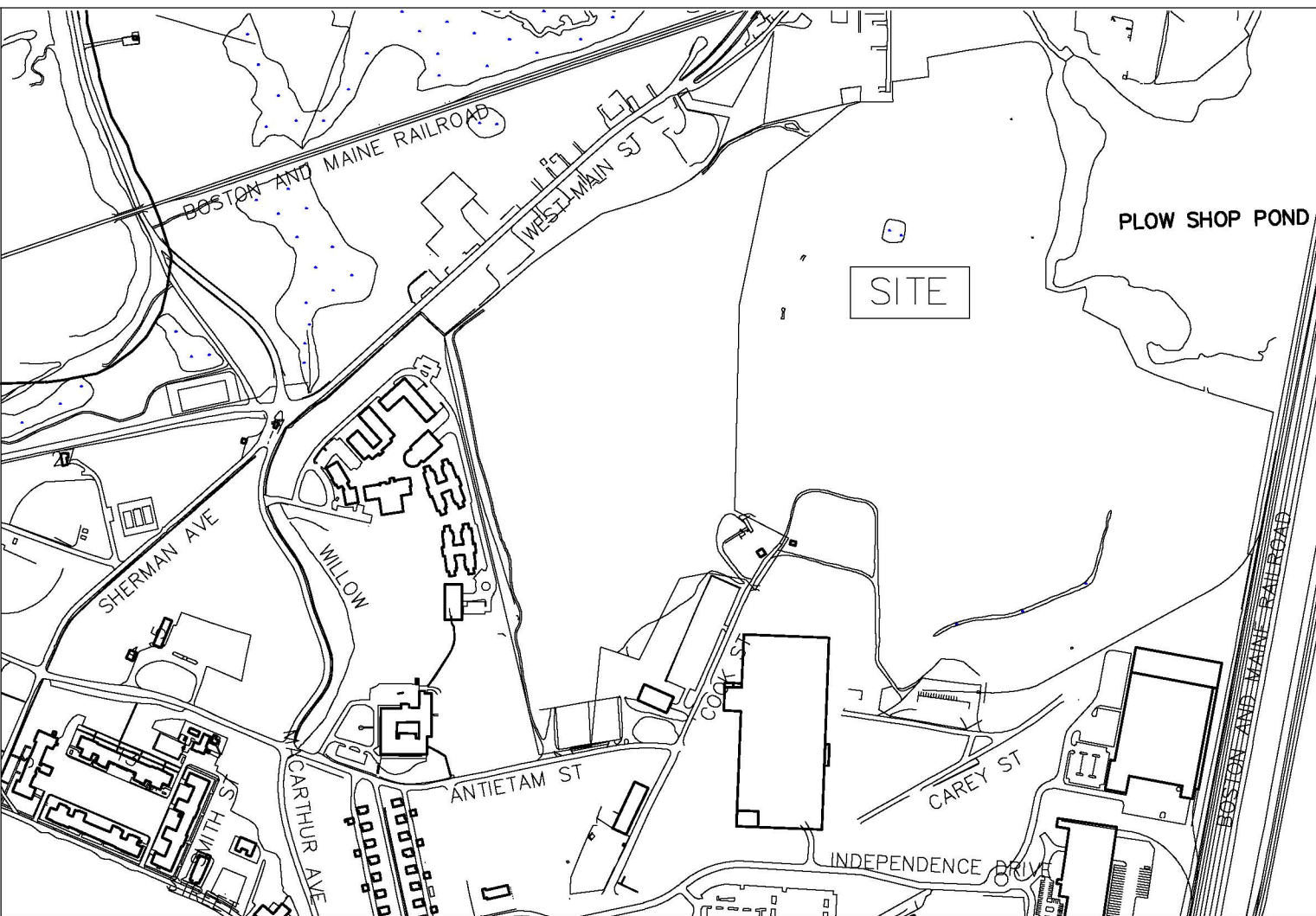


**SOVEREIGN CONSULTING INC.**  
16 CHESTNUT STREET  
FOXBOROUGH, MA 02035  
TEL: (508) 339-3200 FAX: (508) 339-3248

NOTE: LANDFILL CAP DETAILS BASED OFF OF "SECTIONS AND DETAILS - SHEPLEY'S HILL LANDFILL BARRIER WALL, FORMER FORT DEVENS ARMY INSTALLATION, DEVENS, MASSACHUSETTS" BY AMEC ENVIRONMENTAL & INFRASTRUCTURE, INC. DATED 02/12/2012

|                        |         |         |         |         |
|------------------------|---------|---------|---------|---------|
| PREPARED<br>02/06/2013 | UPDATED | UPDATED | UPDATED | UPDATED |
| BY: ROV                | BY:     | BY:     | BY:     | BY:     |





LOCUS MAP  
(N.T.S.)

LEGEND

- MONITORING WELL
- TEMPORARY BENCH MARK
- CONCRETE BOLLARD
- GAS VENT
- CHAIN LINK FENCE
- BARRIER WALL
- EXISTING SOIL PILE
- TREE LINE
- LIMIT OF DISTURBANCE (APPROX.)
- INTERMEDIATE CONTOURS
- INDEX CONTOURS
- RIP-RAP

| WELL - BORING | NORTHING     | EASTING    | GROUND ELEV. | PVC ELEV. |
|---------------|--------------|------------|--------------|-----------|
| MW            | 3,026,841.68 | 630,878.36 | 245.60       |           |
| MW RSK-8      | 3,027,098.42 | 630,514.90 | 226.02       |           |
| MW RSK-9      | 3,027,099.84 | 630,516.31 | 225.71       |           |
| MW RSK-10     | 3,027,098.26 | 630,517.80 | 225.69       |           |
| MW RSK-11     | 3,027,097.18 | 630,517.14 | 225.81       |           |
| MW RSK-12     | 3,027,095.05 | 630,519.31 | 225.78       |           |
| MW RSK-23     | 3,027,071.10 | 630,534.82 | 226.97       |           |
| MW RSK-24     | 3,026,959.54 | 630,502.30 | 240.49       |           |
| MW RSK-25     | 3,026,970.64 | 630,636.33 | 239.62       |           |
| MW RSK-47     | 3,027,093.28 | 630,520.51 | 225.87       |           |
| MW RSK-49     | 3,027,073.07 | 630,660.07 | 219.88       |           |
| MW SHL-10     | 3,026,867.70 | 630,877.27 | 246.62       | 247.97    |
| MW SHL-19     | 3,026,946.02 | 630,665.04 | 238.62       | 240.53    |
| MW SHL-3      | 3,026,705.24 | 630,910.97 | 245.82       | 246.91    |
| MW SHL-4      | 3,027,057.03 | 630,575.71 | 225.59       | 227.49    |
| MW SHM-10-07  | 3,026,889.79 | 630,301.42 | 244.94       |           |
| MW SHM-11-06  | 3,027,590.02 | 630,411.37 | 233.33       |           |
| MW SHM-11-07  | 3,027,132.32 | 630,414.60 | 237.79       | 240.89    |
| MW SHM-93-01A | 3,026,711.56 | 630,677.11 | 240.53       |           |
| MW SHM-93-10C | 3,026,846.23 | 630,886.09 | 245.54       |           |
| MW SHM-93-10D | 3,026,828.82 | 630,894.70 | 245.44       |           |
| MW SHP-05-44  | 3,027,588.48 | 630,587.63 | 255.44       |           |
| * MW PZ-12-01 | 3,027,384.50 | 630,488.33 | 233.80       | 237.54    |
| * MW PZ-12-02 | 3,027,383.76 | 630,467.56 | 233.66       | 237.77    |
| * MW PZ-12-03 | 3,027,193.51 | 630,474.21 | 233.09       | 236.40    |
| * MW PZ-12-04 | 3,027,194.25 | 630,452.84 | 235.11       | 238.20    |
| * MW PZ-12-05 | 3,027,086.56 | 630,480.23 | 236.65       | 238.70    |
| * MW PZ-12-06 | 3,027,081.94 | 630,454.68 | 238.77       | 242.22    |
| * MW PZ-12-07 | 3,026,971.79 | 630,568.57 | 240.83       | 244.63    |
| * MW PZ-12-08 | 3,026,962.43 | 630,546.13 | 241.76       | 244.88    |
| * MW PZ-12-09 | 3,026,801.42 | 630,740.93 | 238.42       | 241.93    |
| * MW PZ-12-10 | 3,026,778.19 | 630,723.78 | 238.92       | 242.28    |

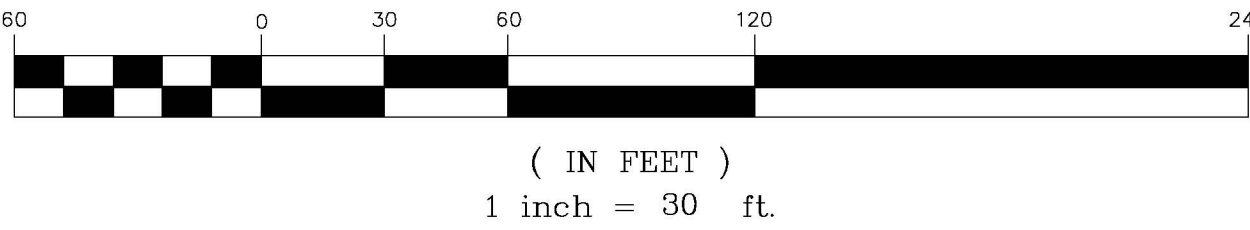
\* NEW WELLS LOCATED ON NOVEMBER 9, 2012

SOURCE: 'AS-BUILT SURVEY, SHEPLEY'S HILL LANDFILL, FORMER FORT DEVENS ARMY BASE, ANTIETAM STREET, DEVENS, MASSACHUSETTS' BY WSP SELLS DATED NOVEMBER 16, 2012

NOTES

- THIS PLAN WAS PREPARED BY WSP SELLS FROM AN ACTUAL ON THE GROUND FIELD SURVEY CONDUCTED BY WSP SELLS ON JUNE 26-27, 2012 AND NOVEMBER 9, 2012.
- THE HORIZONTAL DATUM SHOWN HEREON REFERENCES NAD83.
- THE VERTICAL DATUM SHOWN HEREON REFERENCES NAVD88.

GRAPHIC SCALE



**SOVEREIGN CONSULTING INC.**  
**16 CHESTNUT STREET**  
**FOXBOROUGH, MA 02035**  
**TEL:(508) 339-3200 FAX:(508) 339-3248**

|             |                 |                  |           |
|-------------|-----------------|------------------|-----------|
| Drawn By    | ROV             | Date             | Job No.   |
| Surveyed By | AJ, SJ, JL & RC | JANUARY 10, 2013 | 123081    |
| Checked By  | TH              | Scale            | Sheet No. |
| Revised     | APRIL 24, 2013  | 1" = 30'         | 1 OF 1    |









## **TABLES**

**TABLE 1**  
**Groundwater Quality Parameters Monitored during Well Development**  
**Shepley's Hill Landfill, Devens, MA**  
**November 9 12, 2011**

| Well Location | Time (Military Format) | Rate (ml/min) | Turbidity NTU | DO mg/L | pH   | Temp Celcius | Spec Cond uS/cm | ORP mV  | Color | Odor |
|---------------|------------------------|---------------|---------------|---------|------|--------------|-----------------|---------|-------|------|
| PZ-12-01      | 0755                   | 700           | 1,070         | 12.17   | 6.27 | 11.54        | 366             | -110.9  | Silty | None |
|               | 0803                   | 700           | 1,064         | 11.59   | 6.28 | 11.09        | 357             | -117.1  | Silty | None |
|               | 0808                   | 700           | 918           | 10.94   | 6.23 | 11.19        | 358             | -120.8  | Silty | None |
|               | 0812                   | 700           | 875           | 8.97    | 6.26 | 11.29        | 355             | -121.9  | Silty | None |
|               | 0817                   | 700           | 970           | 9.89    | 6.28 | 11.20        | 351             | -122.3  | Silty | None |
|               | 0824                   | 700           | 793           | 11.76   | 6.25 | 11.38        | 343             | -122.9  | Silty | None |
|               | 0829                   | 700           | 644           | 8.49    | 6.25 | 11.44        | 345             | -122.2  | Silty | None |
|               | 0834                   | 700           | 61.0          | 8.04    | 6.25 | 11.49        | 345             | -123.2  | Clear | None |
|               | 0893                   | 700           | 22.0          | 4.70    | 6.24 | 11.56        | 347             | -123.8  | Clear | None |
| PZ-12-02      | 0835                   | 750           | 1,912         | 12.20   | 6.37 | 12.95        | 439             | -115.9  | Silty | None |
|               | 0845                   | 750           | 3,607         | 5.80    | 6.43 | 13.15        | 224             | -127.1  | Silty | None |
|               | 0855                   | 750           | 3,993         | 0.61    | 6.43 | 13.33        | 192             | -133.9  | Silty | None |
|               | 0900                   | 750           | OV            | 1.04    | 6.42 | 13.49        | 183             | -135.4  | Silty | None |
|               | 0905                   | 750           | 3,377         | 1.21    | 6.43 | 13.37        | 173             | -136.4  | Silty | None |
|               | 0910                   | 750           | 3,487         | 0.86    | 6.42 | 13.39        | 154             | -135    | Silty | None |
|               | 0915                   | 750           | 3,872         | 0.45    | 6.43 | 13.44        | 152             | -134.7  | Silty | None |
|               | 0920                   | 750           | 4,080         | 0.54    | 6.43 | 13.57        | 146             | -135.1  | Silty | None |
|               | 0925                   | 750           | 3,987         | 0.75    | 6.44 | 13.60        | 148             | -134.6  | Silty | None |
| PZ-12-03      | 1010                   | 1200          | 1,187         | 9.38    | 6.37 | 13.05        | 344             | -136.20 | Silty | None |
|               | 1015                   | 1200          | 1,295         | 9.40    | 6.36 | 13.11        | 342             | -137.70 | Silty | None |
|               | 1020                   | 1200          | 1,221         | 8.99    | 6.36 | 13.16        | 343             | -139.40 | Silty | None |
|               | 1025                   | 1200          | 831           | 6.64    | 6.34 | 13.14        | 350             | -141.80 | Silty | None |
|               | 1030                   | 1200          | 610           | 5.27    | 6.34 | 13.07        | 352             | -142.40 | Clear | None |
|               | 1035                   | 1200          | 641           | 4.27    | 6.34 | 13.16        | 356             | -144.00 | Clear | None |
|               | 1040                   | 1200          | 683           | 3.07    | 6.35 | 13.33        | 357             | -145.20 | Clear | None |
|               | 1045                   | 1200          | 814           | 2.67    | 6.33 | 13.32        | 359             | -145.60 | Silty | None |
|               | 1050                   | 1200          | 1,016         | 5.75    | 6.34 | 13.30        | 367             | -146.50 | Silty | None |
|               | 1055                   | 1200          | 986           | 2.06    | 6.34 | 13.45        | 386             | -147.40 | Silty | None |
|               | 1100                   | 1200          | 917           | 2.03    | 6.34 | 13.50        | 370             | -148.10 | Silty | None |
|               | 1105                   | 1200          | 873           | 2.10    | 6.34 | 13.44        | 368             | -148.50 | Silty | None |
|               | 1110                   | 1200          | 893           | 7.61    | 6.33 | 13.26        | 370             | -148.60 | Silty | None |
|               | 1115                   | 1200          | 830           | 5.07    | 6.33 | 13.33        | 370             | -148.70 | Silty | None |
|               | 1120                   | 1200          | 791           | 3.46    | 6.32 | 13.28        | 374             | -149.10 | Silty | None |
|               | 1125                   | 1200          | 675           | 2.67    | 6.32 | 13.43        | 376             | -150.00 | Silty | None |
|               | 1130                   | 1200          | 606           | 2.43    | 6.33 | 13.56        | 380             | -149.90 | Silty | None |
|               | 1135                   | 1200          | 37.0          | 1.77    | 6.32 | 13.52        | 378             | -149.60 | Clear | None |
|               | 1140                   | 1200          | 12.0          | 1.25    | 6.32 | 13.49        | 379             | -150.00 | Clear | None |

**TABLE 1**  
**Groundwater Quality Parameters Monitored during Well Development**  
**Shepley's Hill Landfill, Devens, MA**  
**November 9 12, 2011**

| Well Location | Time (Military Format) | Rate (ml/min) | Turbidity NTU | DO mg/L | pH   | Temp Celcius | Spec Cond uS/cm | ORP mV | Color  | Odor |
|---------------|------------------------|---------------|---------------|---------|------|--------------|-----------------|--------|--------|------|
| PZ-12-04      | 1010                   | 1100          | 3,348         | 0.83    | 6.49 | 13.14        | 476             | -134.0 | Silty  | None |
|               | 1020                   | 1100          | 1,652         | 0.72    | 6.50 | 12.90        | 441             | -132.0 | Cloudy | None |
|               | 1025                   | 1100          | 23.0          | 0.56    | 6.50 | 12.89        | 432             | -134.6 | Cloudy | None |
|               | 1030                   | 1100          | 73.0          | 0.57    | 6.51 | 12.92        | 430             | -135.2 | Cloudy | None |
|               | 1035                   | 1100          | 57.5          | 0.53    | 6.50 | 12.85        | 424             | -135.2 | Cloudy | None |
|               | 1040                   | 1100          | 53.0          | 0.84    | 6.51 | 12.96        | 424             | -137.2 | Cloudy | None |
|               | 1045                   | 1100          | 86.1          | 1.31    | 6.51 | 13.65        | 425             | -136.8 | Cloudy | None |
|               | 1050                   | 1100          | 22.0          | 0.85    | 6.51 | 13.14        | 417             | -138.6 | Clear  | None |
| PZ-12-05      | 1258                   | 700           | 709           | 14.97   | 6.40 | 12.59        | 538             | -108.9 | Silty  | None |
|               | 1304                   | 700           | 1,037         | 19.25   | 6.33 | 12.52        | 535             | -111.7 | Silty  | None |
|               | 1310                   | 700           | 1,037         | 10.51   | 6.31 | 12.61        | 534             | -111.9 | Silty  | None |
|               | 1315                   | 700           | 843.0         | 13.39   | 6.27 | 12.73        | 583             | -110.7 | Silty  | None |
|               | 1320                   | 700           | 733.0         | 15.92   | 6.13 | 12.41        | 525             | -102.8 | Silty  | None |
|               | 1325                   | 700           | 36.0          | 14.35   | 6.12 | 12.31        | 528             | -103.1 | Silty  | None |
|               | 1330                   | 700           | 99.0          | 21.01   | 5.91 | 12.40        | 530             | -93.4  | Silty  | None |
|               | 1335                   | 700           | 85.0          | 11.47   | 5.00 | 12.40        | 527             | -96.3  | Clear  | None |
|               | 1340                   | 700           | 65.7          | 12.81   | 5.98 | 12.38        | 528             | -96.2  | Clear  | None |
|               | 1345                   | 700           | 48.9          | 14.15   | 5.91 | 12.40        | 527             | -91.9  | Clear  | None |
| PZ-12-06      | 1300                   | 1150          | 44.0          | 1.65    | 6.22 | 13.39        | 381             | -110.4 | Clear  | None |
|               | 1305                   | 1150          | 33.0          | 1.56    | 6.24 | 13.61        | 384             | -114.8 | Clear  | None |
|               | 1310                   | 1150          | 638           | 1.35    | 6.25 | 13.65        | 385             | -117.2 | Clear  | None |
|               | 1315                   | 1150          | 26.0          | 0.75    | 6.25 | 13.37        | 385             | -118.8 | Clear  | None |
|               | 1320                   | 1150          | 45.0          | 0.74    | 6.26 | 13.31        | 386             | -119.2 | Clear  | None |
|               | 1325                   | 1150          | 43.0          | 0.53    | 6.26 | 13.33        | 385             | -119.9 | Clear  | None |
| PZ-12-07      | 0851                   | 250           | 14.0          | 73.49   | 6.37 | 12.04        | 266             | 63.9   | Silty  | None |
|               | 0858                   | 250           | 842           | 257.60  | 6.22 | 12.00        | 252             | -68.1  | Clear  | None |
|               | 0903                   | 250           | 26.0          | 195.20  | 6.08 | 12.36        | 255             | -63.8  | Clear  | None |
|               | 0907                   | 250           | 35.0          | 285.50  | 5.09 | 12.38        | 259             | -48.5  | Clear  | None |
|               | 0910                   | 250           | 3.0           | 153.80  | 6.34 | 12.10        | 262             | -63.0  | Clear  | None |
|               | 0915                   | 250           | 3.0           | 62.50   | 5.55 | 12.37        | 264             | -37.4  | Clear  | None |
| PZ-12-08      | 1000                   | 600           | 3461          | 38.82   | 5.75 | 12.71        | 77              | 59.1   | Silty  | None |
|               | 1036                   | 600           | 634           | 50.32   | 5.79 | 12.80        | 84              | 97.7   | Silty  | None |
|               | 1040                   | 600           | 711           | 50.97   | 5.59 | 13.04        | 86              | 110.4  | Silty  | None |
|               | 1045                   | 600           | 1328          | 57.10   | 4.97 | 12.47        | 79              | 143.4  | Silty  | None |
|               | 1050                   | 600           | 43            | 60.33   | 5.63 | 13.19        | 87              | 118.4  | Silty  | None |
|               | 1056                   | 600           | 38            | 6.42    | 5.34 | 12.90        | 86              | 131.3  | Silty  | None |
|               | 1104                   | 600           | 880           | 5.29    | 5.33 | 12.89        | 83              | 88.7   | Silty  | None |
|               | 1112                   | 600           | 609           | 4.65    | 5.10 | 12.44        | 83              | 156.4  | Silty  | None |
|               | 1117                   | 600           | 574           | 4.65    | 4.87 | 12.48        | 85              | 189.2  | Silty  | None |
|               | 1124                   | 600           | 82            | 52.18   | 5.30 | 12.62        | 85              | 147.8  | Silty  | None |
|               | 1130                   | 600           | 114           | 12.74   | 5.42 | 12.79        | 83              | 132.6  | Silty  | None |



**TABLE 1**  
**Groundwater Quality Parameters Monitored during Well Development**  
**Shepley's Hill Landfill, Devens, MA**  
**November 9 12, 2011**

| Well Location | Time (Military Format) | Rate (ml/min) | Turbidity NTU | DO mg/L | pH   | Temp Celcius | Spec Cond uS/cm | ORP mV | Color  | Odor |
|---------------|------------------------|---------------|---------------|---------|------|--------------|-----------------|--------|--------|------|
| PZ-12-09      | 0820                   | 400           | OV            | 6.48    | 6.71 | 12.82        | 265             | 2.2    | Silty  | None |
|               | 0900                   | 400           | OV            | 7.40    | 6.14 | 12.96        | 256             | 23.1   | Silty  | None |
|               | 0920                   | 400           | OV            | 7.60    | 6.08 | 12.92        | 265             | 38.1   | Silty  | None |
|               | 0935                   | 1,000         | 3,419         | 7.30    | 6.08 | 12.98        | 243             | 42.8   | Silty  | None |
|               | 0950                   | 1,000         | 2,458         | 7.33    | 6.07 | 13.19        | 234             | 52.4   | Silty  | None |
|               | 1005                   | 1,000         | 1,997         | 8.34    | 6.08 | 13.44        | 267             | 52.9   | Silty  | None |
|               | 1015                   | 1,000         | 2,578         | 7.83    | 6.07 | 13.22        | 252             | 54.1   | Silty  | None |
|               | 1025                   | 1,000         | 2,187         | 7.63    | 6.07 | 13.33        | 241             | 55.1   | Silty  | None |
|               | 1035                   | 1,000         | 1,785         | 6.44    | 6.07 | 13.09        | 264             | 57.4   | Silty  | None |
| PZ-12-10      | 1110                   | 1,200         | 3,759         | 10.60   | 5.80 | 13.45        | 43              | 62.4   | Silty  | None |
|               | 1130                   | 1,200         | 1,935         | 11.03   | 5.86 | 13.44        | 43              | 66.9   | Silty  | None |
|               | 1150                   | 1,200         | 1,335         | 11.40   | 5.88 | 13.52        | 85              | 72.9   | Silty  | None |
|               | 1210                   | 1,200         | 693           | 11.72   | 5.88 | 13.74        | 52              | 75.7   | Silty  | None |
|               | 1230                   | 1,000         | 107           | 9.27    | 5.86 | 13.64        | 54              | 79.6   | Silty  | None |
|               | 1235                   | 1,000         | 82.0          | 10.83   | 5.86 | 13.7         | 53              | 79.8   | Silty  | None |
|               | 1240                   | 1,000         | 76.0          | 10.72   | 5.86 | 13.57        | 42              | 119.7  | Cloudy | None |
|               | 1245                   | 1,000         | 65.0          | 9.31    | 5.86 | 13.62        | 44              | 123.1  | Cloudy | None |
|               | 1250                   | 1,000         | 56.4          | 9.56    | 5.84 | 13.45        | 55              | 120.9  | Cloudy | None |
|               | 1255                   | 1,000         | 41.3          | 9.62    | 5.85 | 13.6         | 55              | 120.1  | Clear  | None |

Notes: OV - Over Range of Instrument

**Table 2**  
**Barrier Wall Performance Monitoring**  
**Piezometer Construction Details**

| Well ID  | Northing     | Easting    | Ground Surface Elev. | Top of Casing Elev. | Total Depth BGS (ft) | Screen Depth BGS (ft) |
|----------|--------------|------------|----------------------|---------------------|----------------------|-----------------------|
| PZ-12-01 | 3,027,384.50 | 630,488.33 | 233.80               | 237.54              | 34                   | 24-34                 |
| PZ-12-02 | 3,027,383.76 | 630,467.56 | 233.66               | 237.77              | 34                   | 24-34                 |
| PZ-12-03 | 3,027,193.51 | 630,474.21 | 233.09               | 236.4               | 34                   | 24-34                 |
| PZ-12-04 | 3,027,194.25 | 630,452.84 | 235.11               | 238.2               | 34                   | 24-34                 |
| PZ-12-05 | 3,027,363.03 | 630,389.18 | 236.65               | 238.7               | 36                   | 26-36                 |
| PZ-12-06 | 3,027,081.94 | 630,454.68 | 238.77               | 242.22              | 35                   | 25-35                 |
| PZ-12-07 | 3,026,971.79 | 630,568.57 | 240.83               | 244.63              | 30                   | 20-30                 |
| PZ-12-08 | 3,026,962.43 | 630,546.13 | 241.76               | 244.88              | 32                   | 22-32                 |
| PZ-12-09 | 3,026,801.42 | 630,740.93 | 238.42               | 241.93              | 30                   | 20-30                 |
| PZ-12-10 | 3,026,778.19 | 630,723.79 | 238.92               | 242.28              | 30                   | 20-30                 |

**Notes:**

Horizontal datum references NAD83 US State Plane Mass Mainland US Feet

Vertical datum references NAD88.

**BGS: Below Ground Surface**

**ft: feet**



## **APPENDIX A**

### **Submittal Packages**

**(See CD Included Separately)**

| <b>TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR<br/>MANUFACTURER'S CERTIFICATES OF COMPLIANCE</b><br><small>(Read instructions on reverse side prior to initiating this form)</small> |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         | <b>DATE</b><br>August 6, 2012                |                                      | <b>TRANSMITTAL NO:</b><br><b>001</b>                                                                                                                                |                                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| <b>SECTION I - REQUEST FOR APPROVAL OF THE FOLLOWING ITEMS</b> (This section will be initiated by the Contractor)                                                                                           |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
| <b>TO:</b><br>Zachary Mothershed - Project Engineer<br>US Army Corps of Engineers<br>696 Virginia Road<br>Concord, MA 01742-2751                                                                            |                                                                                 |                                                                                                  | <b>FROM:</b><br>Sovereign Consulting, Inc.<br>16 Chestnut Street, Suite 520<br>Foxboro, MA 02035                                                  |                                                                                                                                                                                                                                                                                                                         | <b>CONTRACT NO:</b><br>W912WJ-10-D-0003-0002 |                                      | <b>CHECK ONE:</b><br><input checked="checked" type="checkbox"/> THIS IS A NEW TRANSMITTAL<br><input type="checkbox"/> THIS IS A RESUBMITTAL OF<br>TRANSMITTAL _____ |                                |
| SPECIFICATION SECTION NO: (Cover only one section with each transmittal)<br><div style="text-align: center; font-weight: bold; font-size: 1.2em;">02215</div>                                               |                                                                                 |                                                                                                  | PROJECT TITLE AND LOCATION:<br><div style="text-align: center;"> <b>Shepley's Hill Landfill<br/>Barrier Wall<br/>Devens, Massachusetts</b> </div> |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
| ITEM<br>NO.<br><br>a.                                                                                                                                                                                       | DESCRIPTION OF ITEM SUBMITTED<br><br>(Type, size, model number, etc.)<br><br>b. | MFG. OR CONTR. CAT.<br>CURVE DRAWING OR<br>BROCHURE NO.<br><br>(See instruction No. 8)<br><br>c. | NO. OF<br>COPIES<br><br>d.                                                                                                                        | CONTRACT REFERENCE<br>DOCUMENT                                                                                                                                                                                                                                                                                          |                                              | FOR CONTRACTOR<br>USE CODE<br><br>g. | VARIATION<br>(See instruction<br>No. 6)<br><br>h.                                                                                                                   | FORCE<br>USE<br>CODE<br><br>i. |
|                                                                                                                                                                                                             |                                                                                 |                                                                                                  |                                                                                                                                                   | SPEC. PARA.<br>NO.<br><br>e.                                                                                                                                                                                                                                                                                            | DRAWING<br>SHEET NO.<br><br>f.               |                                      |                                                                                                                                                                     |                                |
| 1                                                                                                                                                                                                           | Bentonite - Manufacturer                                                        | N/A                                                                                              | 1                                                                                                                                                 | 1.7                                                                                                                                                                                                                                                                                                                     | ~                                            | FIO                                  | ~                                                                                                                                                                   |                                |
| 2                                                                                                                                                                                                           | Water Source Chemistry                                                          | N/A                                                                                              | 1                                                                                                                                                 | 1.7                                                                                                                                                                                                                                                                                                                     | ~                                            | FIO                                  | ~                                                                                                                                                                   |                                |
| 3                                                                                                                                                                                                           | Backfill Mix Design Report                                                      | N/A                                                                                              | 1                                                                                                                                                 | 1.7                                                                                                                                                                                                                                                                                                                     | ~                                            | FIO                                  | ~                                                                                                                                                                   |                                |
| 4                                                                                                                                                                                                           | Off-Site Borrow Source Geotechnical Testing Results                             | N/A                                                                                              | 1                                                                                                                                                 | 1.7                                                                                                                                                                                                                                                                                                                     | ~                                            | FIO                                  | ~                                                                                                                                                                   |                                |
|                                                                                                                                                                                                             |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                             |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                             |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                             |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                             |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                             |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                             |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                             |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                             |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                             |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
| REMARKS                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   | I certify that the above submitted items have been reviewed<br>in detail and correct and in strict conformance with the<br>contract drawings and specifications except as otherwise stated.<br><br><div style="text-align: right;"> <u>Thomas B. Hevner</u> <br/>         NAME AND SIGNATURE OF CONTRACTOR       </div> |                                              |                                      |                                                                                                                                                                     |                                |
| <b>SECTION II - APPROVAL ACTION</b>                                                                                                                                                                         |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
| ENCLOSURES RETURNED (List by Item No.)                                                                                                                                                                      |                                                                                 |                                                                                                  | NAME, TITLE AND SIGNATURE OF APPROVING AUTHORITY                                                                                                  |                                                                                                                                                                                                                                                                                                                         |                                              |                                      | DATE                                                                                                                                                                |                                |

**Item No. 1 – Bentonite – Manufacturer**



# **SHEPLEY'S HILL LANDFILL BARRIER WALL**

**SUBMITTAL No. 1**

**SPECIFICATION SECTION 02215  
PARAGRAPH 1.7 A  
MANUFACTURE'S CATALOG CERTIFICATES  
AND  
SPECIFICATIONS FOR BENTONITE**

**DATE SUBMITTED**

**JUNE 11, 2012**



## COMPANY



Wyo-Ben Inc. mines, processes, and distributes high quality sodium bentonite products throughout the world. Our three processing facilities located in the heart of the Wyoming bentonite reserves allow us to offer the best in consistent quality and innovative solutions to meet your bentonite needs.

We take pride in supplying products for use in environmental protection, drilling fluids, and industrial applications. Our knowledgeable sales staff and dedicated research people constantly work with customers to develop products meeting the needs in the global marketplace.





For use in drilling operations where premium grade Wyoming Bentonite is desired. HYDROGEL® is a preferred product for use in oil and gas exploration drilling. It is also used in slurry trenching, caisson boring, and cast-in-place concrete foundations.

**PRODUCT CHARACTERISTICS:**

- Manufactured to exceed API 13A, Section 9 specifications.
- 200 mesh viscosity builder.
- Yields excellent fluid loss characteristics.
- Assists in stabilizing the bore hole or trench walls.

| PRODUCT SPECIFICATIONS                               | A.P.I. Specifications<br>13-A, Sec. 9-2004 | Typical HYDROGEL® |
|------------------------------------------------------|--------------------------------------------|-------------------|
| Barrel Yield                                         | --                                         | 96 ± 5            |
| Viscometer Reading at 600 rpm                        | 30 Min.                                    | 36 ± 6            |
| Water Loss                                           | 15.0 cc Max.                               | 13.5 ± 1          |
| % through 200 Mesh Screen                            | --                                         | 80 ± 4            |
| Wet Screen Analysis Residue on<br>U.S. Sieve No. 200 | 4.0% Max.                                  | 3.0 ± .5          |
| % Moisture                                           | --                                         | 8 ± 2             |
| pH                                                   | --                                         | 9.0 ± 1.0         |
| Gel Strength—10 sec                                  | --                                         | 4 ± 1             |
| Gel Strength—10 min                                  | --                                         | 12 ± 3            |
| Plastic Viscosity                                    | --                                         | 12 ± 2            |
| Yield Point, lb/100 sq. ft.                          | 3 x P.V. Max.                              | 16 ± 2            |

**APPLICATION RATE**

Mix 20 to 50 pounds per 100 gallons of make-up water. This product is designed to be flushed out of the well bore prior to using the well for drinking water. Before placing a well in service for drinking water it is to be properly flushed and drained until the turbidity of the water is <1 NTU above ambient turbidity.

HYDROGEL® is available in 50 pound and 100 pound multi-walled paper bags, bulk bags, or bulk.

**WYO-BEN, INC.**

**P.O. Box 1979**

**Billings, Montana 59103**

**Internet: [www.wyoben.com](http://www.wyoben.com)**

**email: [email@wyoben.com](mailto:email@wyoben.com)**

**800-548-7055 or (406) 652-6351**

## **Item No. 2 – Water Source Chemistry**

## Hevner, Thomas

---

**From:** Hevner, Thomas  
**Sent:** Friday, July 13, 2012 9:43 AM  
**To:** rcardoza@mtac.com  
**Cc:** Chaffee, Jonathan; Marc Cicalese (mcicalese@sovcon.com); Lyle Tracy (lyle.tracy@amec.com); Dave Mueller (dmueller@mtac.com)  
**Subject:** FW: Devens water quality data  
**Attachments:** CANON2NDFLDEVENS\_EXCHANGE\_07122012-161143.PDF

Rich –

Attached is the testing data for the water that you are going to be using from the hydrant for the barrier wall.

Let me know if you need anything else.

Best Regards,

\* Tom \*

---

**From:** Cohen, Mark [<mailto:MCohen@Massdevelopment.com>]  
**Sent:** Thursday, July 12, 2012 4:20 PM  
**To:** Hevner, Thomas  
**Subject:** Devens water quality data

Tom,

Attached water quality data for the 3 wells that are active is from samples collected August 2011, which I believe is the most recent testing that was done for these parameters. The pH shown for MacPherson Well is 7.70, which is higher than we currently run the well (typically around pH 7.2).

--- Mark



## Secondary Contaminant Report

I. PWS INFORMATION: Please refer to your DEP Water Quality Sampling Schedule (WQSS) to help complete this form

PWS ID #: 2019001

City / Town: AYER

PWS Name: Devens Mass Development

PWS Class: COM ☒ NTNC ☐ TNC ☐

| DEP LOCATION (LOC) ID#                                                                                                | DEP Location Name                                                  | Sample Information                                                                                                                                                      | Date Collected                                                                                                   | Collected By                           |
|-----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| A 03G                                                                                                                 | Mcperson Well: Finished Water                                      | <input type="checkbox"/> (M)ultiple<br><input checked="" type="checkbox"/> (S)ingle<br><input type="checkbox"/> (R)aw<br><input checked="" type="checkbox"/> (F)inished | 8/30/2011                                                                                                        | P.R.                                   |
| B 05G                                                                                                                 | Patton Replacement Well: Finished Wate                             | <input type="checkbox"/> (M)ultiple<br><input checked="" type="checkbox"/> (S)ingle<br><input type="checkbox"/> (R)aw<br><input checked="" type="checkbox"/> (F)inished | 8/30/2011                                                                                                        | P.R.                                   |
| Routine or Special Sample                                                                                             |                                                                    | Original, Resubmitted or Confirmation Report                                                                                                                            | If Resubmitted Report, list below:                                                                               |                                        |
|                                                                                                                       |                                                                    |                                                                                                                                                                         | (1) Reason for Resubmission                                                                                      | (2) Collection Date of Original Sample |
| A                                                                                                                     | <input checked="" type="checkbox"/> RS <input type="checkbox"/> SS | <input checked="" type="checkbox"/> Original <input type="checkbox"/> Resubmitted <input type="checkbox"/> Confirmation                                                 | <input type="checkbox"/> Resample <input type="checkbox"/> Reanalysis <input type="checkbox"/> Report Correction |                                        |
| B                                                                                                                     | <input checked="" type="checkbox"/> RS <input type="checkbox"/> SS | <input checked="" type="checkbox"/> Original <input type="checkbox"/> Resubmitted <input type="checkbox"/> Confirmation                                                 | <input type="checkbox"/> Resample <input type="checkbox"/> Reanalysis <input type="checkbox"/> Report Correction |                                        |
| SAMPLE NOTES - (Such as, if a Manifold/Multiple sample, list any sources that were on-line during sample collection). |                                                                    |                                                                                                                                                                         |                                                                                                                  |                                        |
| A                                                                                                                     |                                                                    |                                                                                                                                                                         |                                                                                                                  |                                        |
| B                                                                                                                     |                                                                    |                                                                                                                                                                         |                                                                                                                  |                                        |

## II. ANALYTICAL LABORATORY INFORMATION:

Primary Lab MA Cert. #:

M-R1010

Primary Lab Name:

New England Testing Lab

Subcontracted? (Y/N)

N

Analysis Lab MA Cert. #:

Analysis Lab Name:

| Compound                                                                                                     | Results |       | SMCL    | MDL (mg/L) | Lab Method   | Date Analyzed | Lab Sample ID# |
|--------------------------------------------------------------------------------------------------------------|---------|-------|---------|------------|--------------|---------------|----------------|
|                                                                                                              | A       | B     |         |            |              |               |                |
| IRON (mg/L)                                                                                                  | ND      | ND    | 0.3     | 0.05       | SM 3120B     | 9/2/2011      | W0830-16       |
| MANGANESE (mg/L)                                                                                             | 0.086   | 0.128 | 0.05*   | 0.005      | SM 3120B     | 9/2/2011      | W0830-16       |
| ALKALINITY (mg/L as CaCO3)                                                                                   | 85      | 117   | None    | 2          | SM 2320B     | 9/1/2011      | W0830-16       |
| CALCIUM (mg/L)                                                                                               | 36.0    | 45.2  | None    | 0.05       | SM 3120B     | 9/2/2011      | W0830-16       |
| MAGNESIUM (mg/L)                                                                                             | 5.27    | 5.18  | None    | 0.05       | SM 3120B     | 9/2/2011      | W0830-16       |
| HARDNESS (mg/L as CaCO3)                                                                                     | 112     | 134   | None    | 0.33       | SM 2340C     | 9/2/2011      | W0830-16       |
| POTASSIUM (mg/L)                                                                                             | 30.5    | 4.2   | None    | 0.5        | SM 3120B     | 9/2/2011      | W0830-16       |
| TURBIDITY (NTU)                                                                                              | 0.1     | 0.1   | None    | 0.1        | SM 2130B     | 8/30/2011     | W0830-16       |
| ALUMINUM (mg/L)                                                                                              | ND      | ND    | 0.2     | 0.05       | SM 3120B     | 9/2/2011      | W0830-16       |
| CHLORIDE (mg/L)                                                                                              | 90      | 31    | 250     | 1          | SM 4500Cl-B  | 8/31/2011     | W0830-16       |
| COLOR (C.U.)                                                                                                 | <5      | <5    | 15      | NA         | SM 2120E     | 8/30/2011     | W0830-16       |
| COPPER (mg/L)                                                                                                | 0.05    | 0.03  | 1       | 0.02       | SM 3120B     | 9/2/2011      | W0830-16       |
| ODOR (T.O.N)                                                                                                 | 1       | 1     | 3       | NA         | SM 2150B     | 8/30/2011     | W0830-16       |
| pH                                                                                                           | 7.70    | 7.33  | 6.5-8.5 | NA         | SM 4500H+B   | 8/30/2011     | W0830-16       |
| SILVER (mg/L)                                                                                                | ND      | ND    | 0.10    | 0.0005     | SM 3113B     | 9/2/2011      | W0830-16       |
| SULFATE (mg/L)                                                                                               | 40      | ND    | 250     | 2          | SM 4500SO4-D | 9/1/2011      | W0830-16       |
| TDS (mg/L)                                                                                                   | 264     | 204   | 500     | 10         | SM 2540C     | 8/31/2011     | W0830-16       |
| ZINC (mg/L)                                                                                                  | ND      | ND    | 5       | 0.02       | SM 3120B     | 9/2/2011      | W0830-16       |
| * EPA has established a lifetime Health Advisory (HA) for manganese at 0.3 mg/L and an acute HA at 1.0 mg/L. |         |       |         |            |              |               |                |
| LAB SAMPLE NOTES                                                                                             |         |       |         |            |              |               |                |
| A                                                                                                            |         |       |         |            |              |               |                |
| B                                                                                                            |         |       |         |            |              |               |                |

I certify under penalties of law that I am the person authorized to fill out this form and the information contained herein is true, accurate and complete to the best extent of my knowledge.

Primary Lab Director Signature:

Date: 9/6/2011

If not submitting these results electronically, mail TWO copies of this report to your DEP Regional Office no later than 10 days after the end of the month in which you received this report or no later than 10 days after the end of the reporting period, whichever is sooner.

|                                                                                    |                 |                                            |
|------------------------------------------------------------------------------------|-----------------|--------------------------------------------|
| DEP REVIEW STATUS (Initial & Date)                                                 | Review Comments | <input type="checkbox"/> WQTS Data Entered |
| <input type="checkbox"/> Accepted _____ <input type="checkbox"/> Disapproved _____ |                 |                                            |



## Secondary Contaminant Report

I. PWS INFORMATION: Please refer to your DEP Water Quality Sampling Schedule (WQSS) to help complete this form

PWS ID #: 2019001

City / Town: AYER

PWS Name: Devens Mass Development

PWS Class: COM ☒ NTNC ☐ TNC ☐

| DEP LOCATION (LOC) ID#                                                                                                | DEP Location Name                                                  | Sample Information                                                                                                      | Date Collected                                                                                                   | Collected By                           |
|-----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| A 06G                                                                                                                 | Shabokin Replacement Well: Finished Wa                             | <input type="checkbox"/> (M)ultiple<br><input checked="" type="checkbox"/> (S)ingle                                     | <input type="checkbox"/> (R)aw<br><input checked="" type="checkbox"/> (F)inished                                 | 8/30/2011 P.R.                         |
| B                                                                                                                     |                                                                    | <input type="checkbox"/> (M)ultiple<br><input type="checkbox"/> (S)ingle                                                | <input type="checkbox"/> (R)aw<br><input type="checkbox"/> (F)inished                                            |                                        |
|                                                                                                                       | Routine or Special Sample                                          | Original, Resubmitted or Confirmation Report                                                                            | If Resubmitted Report, list below:                                                                               |                                        |
|                                                                                                                       |                                                                    |                                                                                                                         | (1) Reason for Resubmission                                                                                      | (2) Collection Date of Original Sample |
| A                                                                                                                     | <input checked="" type="checkbox"/> RS <input type="checkbox"/> SS | <input checked="" type="checkbox"/> Original <input type="checkbox"/> Resubmitted <input type="checkbox"/> Confirmation | <input type="checkbox"/> Resample <input type="checkbox"/> Reanalysis <input type="checkbox"/> Report Correction |                                        |
| B                                                                                                                     | <input type="checkbox"/> RS <input type="checkbox"/> SS            | <input type="checkbox"/> Original <input type="checkbox"/> Resubmitted <input type="checkbox"/> Confirmation            | <input type="checkbox"/> Resample <input type="checkbox"/> Reanalysis <input type="checkbox"/> Report Correction |                                        |
| SAMPLE NOTES - (Such as, if a Manifold/Multiple sample, list any sources that were on-line during sample collection). |                                                                    |                                                                                                                         |                                                                                                                  |                                        |
| A                                                                                                                     |                                                                    |                                                                                                                         |                                                                                                                  |                                        |
| B                                                                                                                     |                                                                    |                                                                                                                         |                                                                                                                  |                                        |

## II. ANALYTICAL LABORATORY INFORMATION:

Primary Lab MA Cert. #:

M-RI010

Primary Lab Name:

New England Testing Lab

Subcontracted? (Y/N)

N

Analysis Lab MA Cert. #:

Analysis Lab Name:

| Compound                   | Results |   | SMCL    | MDL (mg/L) | Lab Method   | Date Analyzed | Lab Sample ID# |
|----------------------------|---------|---|---------|------------|--------------|---------------|----------------|
|                            | A       | B |         |            |              |               |                |
| IRON (mg/L)                | ND      |   | 0.3     | 0.05       | SM 3120B     | 9/2/2011      | W0830-16       |
| MANGANESE (mg/L)           | 0.063   |   | 0.05*   | 0.005      | SM 3120B     | 9/2/2011      | W0830-16       |
| ALKALINITY (mg/L as CaCO3) | 100     |   | None    | 2          | SM 2320B     |               | W0830-16       |
| CALCIUM (mg/L)             | 38.3    |   | None    | 0.05       | SM 3120B     | 9/2/2011      | W0830-16       |
| MAGNESIUM (mg/L)           | 3.88    |   | None    | 0.05       | SM 3120B     | 9/2/2011      | W0830-16       |
| HARDNESS (mg/L as CaCO3)   | 112     |   | None    | 0.33       | SM 2340C     | 9/2/2011      | W0830-16       |
| POTASSIUM (mg/L)           | 2.7     |   | None    | 0.5        | SM 3120B     | 9/2/2011      | W0830-16       |
| TURBIDITY (NTU)            | 0.1     |   | None    | 0.1        | SM 2130B     | 8/30/2011     | W0830-16       |
| ALUMINUM (mg/L)            | ND      |   | 0.2     | 0.05       | SM 3120B     | 9/2/2011      | W0830-16       |
| CHLORIDE (mg/L)            | 22      |   | 250     | 1          | SM 4500CI-B  | 8/31/2011     | W0830-16       |
| COLOR (C.U.)               | <5      |   | 15      | NA         | SM 2120E     | 8/30/2011     | W0830-16       |
| COPPER (mg/L)              | ND      |   | 1       | 0.02       | SM 3120B     | 9/2/2011      | W0830-16       |
| ODOR (T.O.N)               | 1       |   | 3       | NA         | SM 2150B     | 8/30/2011     | W0830-16       |
| pH                         | 7.59    |   | 6.5-8.5 | NA         | SM 4500H+B   | 8/30/2011     | W0830-16       |
| SILVER (mg/L)              | ND      |   | 0.10    | 0.0005     | SM 3113B     | 9/2/2011      | W0830-16       |
| SULFATE (mg/L)             | 10      |   | 250     | 2          | SM 4500SO4-D | 9/1/2011      | W0830-16       |
| TDS (mg/L)                 | 96      |   | 500     | 10         | SM 2540C     | 8/31/2011     | W0830-16       |
| ZINC (mg/L)                | ND      |   | 5       | 0.02       | SM 3120B     | 9/2/2011      | W0830-16       |

\* EPA has established a lifetime Health Advisory (HA) for manganese at 0.3 mg/L and an acute HA at 1.0 mg/L.

| LAB SAMPLE NOTES |
|------------------|
| A                |
| B                |

I certify under penalties of law that I am the person authorized to fill out this form and the information contained herein is true, accurate and complete to the best extent of my knowledge.

Primary Lab Director Signature:

Date: 9/6/2011

If not submitting these results electronically, mail TWO copies of this report to your DEP Regional Office no later than 10 days after the end of the month in which you received this report or no later than 10 days after the end of the reporting period, whichever is sooner.

|                                                                                    |                 |                                            |
|------------------------------------------------------------------------------------|-----------------|--------------------------------------------|
| DEP REVIEW STATUS (Initial & Date)                                                 | Review Comments | <input type="checkbox"/> WQTS Data Entered |
| <input type="checkbox"/> Accepted _____ <input type="checkbox"/> Disapproved _____ |                 |                                            |

### **Item No. 3 – Backfill Mix Design Report**



*Technologies to manage risk  
for infrastructure*

Atlanta  
Boston  
Chicago  
New York  
San Francisco

[www.geotesting.com](http://www.geotesting.com)

July 25, 2012

Richard Cardoza  
Moretrench American Corp.  
100 Stickle Avenue, P.O. Box 316  
Rockaway, NJ 07866

RE: Shepley Landfill, Devens, MA (GTX-11659)

Dear Richard:

Enclosed are the test results you requested for the above referenced project. GeoTesting Express, Inc. (GTX) received seven samples from you between 3/29/2012 and 6/11/2012. These samples were labeled as follows:

CLAY / SILT (Graves)

No. 1

No. 3

No. 4

No. 5

No. 6

SHL-11 (permeant)

GTX performed the following tests on these samples:

1 ASTM D 422 - Grain Size Analysis with Hydrometer

3 ASTM D 422 - Grain Size Analyses (sieve only)

3 ASTM D 4318 - Atterberg Limits

2 ASTM D 4972 - pH

2 ASTM D 5084 - Flexible Wall Permeability

GTX also received a Hydrogel Bentonite sample from you on 04/24/12. As requested, GTX prepared a slurry sample using this Hydrogel sample and the sample No. 3 water provided. The slurry was 6% Hydrogel. GTX performed the following tests on this slurry sample:

API PP 13B-1 - Unit Weight

API PP 13B-1 - Marsh Viscosity

API PP 13B-1 - Filter Press

API PP 13B-1 - pH

GTX then prepared two Mix samples as follows;

Mix 1: 50% sample No. 6 with 50% Graves sample with 0.5% dry Hydrogel bentonite .

Mix 2: 50% sample No. 5 with 50% Graves sample with 0.5% dry Hydrogel bentonite .





*Technologies to manage risk  
for infrastructure*

Atlanta  
Boston  
Chicago  
New York  
San Francisco

[www.geotesting.com](http://www.geotesting.com)

The 6% slurry was then added to each mix until the material exhibited a slump of 3 to 6 inches. The following tests were then performed on each mix sample;

ASTM D 422 - Grain Size Analysis with Hydrometer  
ASTM D 4318 - Atterberg Limits  
ASTM D 5084 - Flexible Wall Permeability

GTX was also asked to add another 0.5% hydrogel to Mix 2 and perform an additional ASTM D 5084 - Flexible Wall Permeability. GTX also used this same test specimen to run another permeability using the SHL-11 (permeant) provided by you as the permeant for the test. This result is also included.

See the attached test reports for all results.

The results presented in this report apply only to the items tested. This report shall not be reproduced except in full, without written approval from GeoTesting Express. The remainder of these samples will be retained for a period of sixty (60) days and will then be discarded unless otherwise notified by you. Please call me if you have any questions or require additional information. Thank you for allowing GeoTesting Express the opportunity of providing you with testing services. We look forward to working with you again in the future.

Respectfully yours,

A handwritten signature in blue ink, appearing to read "Joe Tomei", with a stylized flourish extending to the right.

Joe Tomei  
Laboratory Manager



*Technologies to manage risk  
for infrastructure*

Atlanta  
Boston  
Chicago  
New York  
San Francisco  
[www.geotesting.com](http://www.geotesting.com)

---

## **Geotechnical Test Report**

**7/25/2012**

---

# **GTX-11659**

## **Shepley Landfill**

**Devens, MA**

Prepared for:

**Moretrench American Corp.**

---



|            |                           |              |           |
|------------|---------------------------|--------------|-----------|
| Client:    | Moretrench American Corp. |              |           |
| Project:   | Shepley Landfill          |              |           |
| Location:  | Devens, MA                | Project No:  | GTX-11659 |
| Boring ID: | ---                       | Sample Type: | ---       |
| Sample ID: | ---                       | Test Date:   | 05/03/12  |
| Depth :    | ---                       | Test Id:     | 235134    |
|            |                           | Tested By:   | jek       |
|            |                           | Checked By:  | jdt       |

## pH of Soil by ASTM D 4972

| Boring ID | Sample ID | Depth | Visual Description | pH  |
|-----------|-----------|-------|--------------------|-----|
| ---       | No. 1     | ---   | Water sample       | 5.8 |
| ---       | No. 3     | ---   | Water sample       | 6.2 |

Notes: solution water; 10 ml : 10g soil

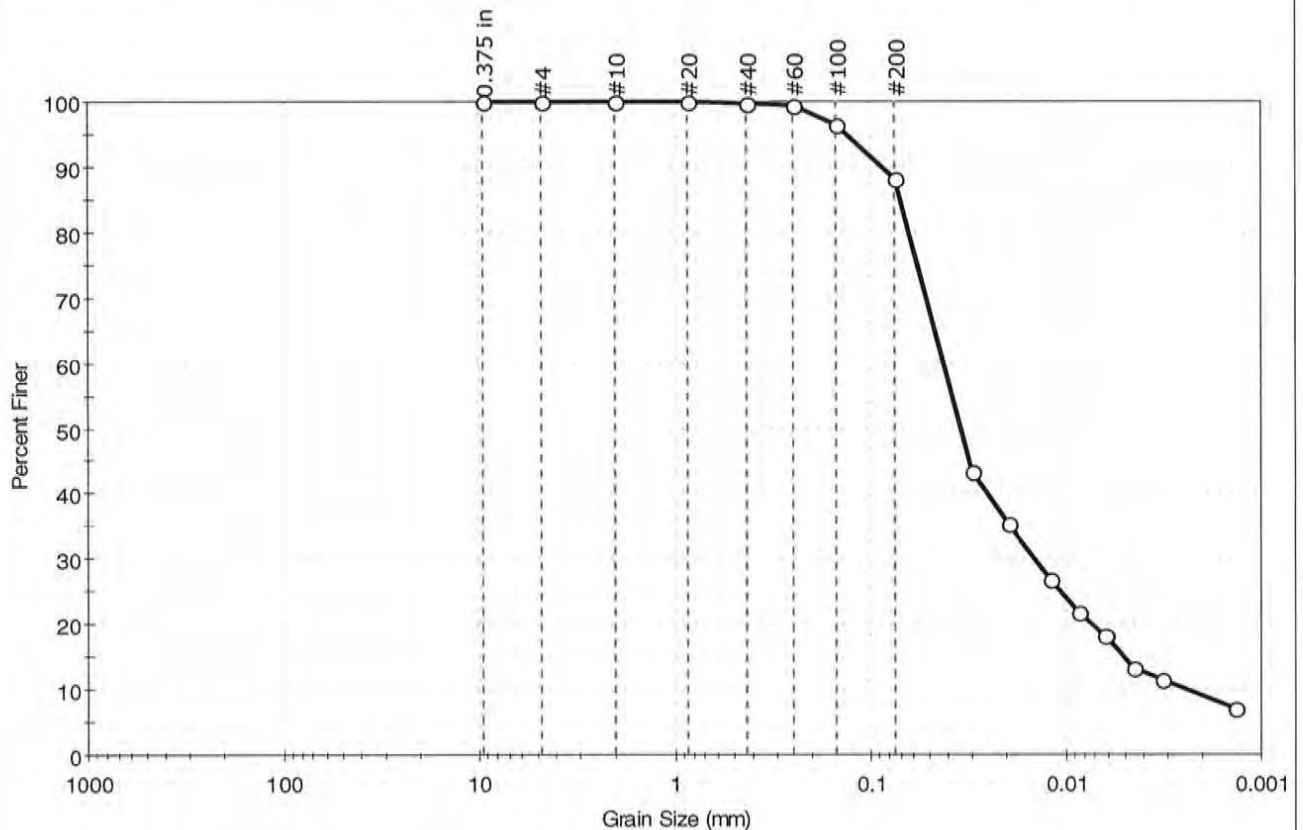
Sample Preparation: screened through #10 sieve

Method A, pH meter used



|                                             |                       |
|---------------------------------------------|-----------------------|
| Client: Moretrench American Corp.           | Project No: GTX-11659 |
| Project: Shepley Landfill                   |                       |
| Location: Devens, MA                        |                       |
| Boring ID: ---                              | Sample Type: bag      |
| Sample ID: CLAY / SILT (Graves)             | Test Date: 03/30/12   |
| Depth: ---                                  | Test Id: 233079       |
| Test Comment: ---                           | Tested By: jbr        |
| Sample Description: Moist, olive brown silt | Checked By: jdt       |
| Sample Comment: ---                         |                       |

## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)

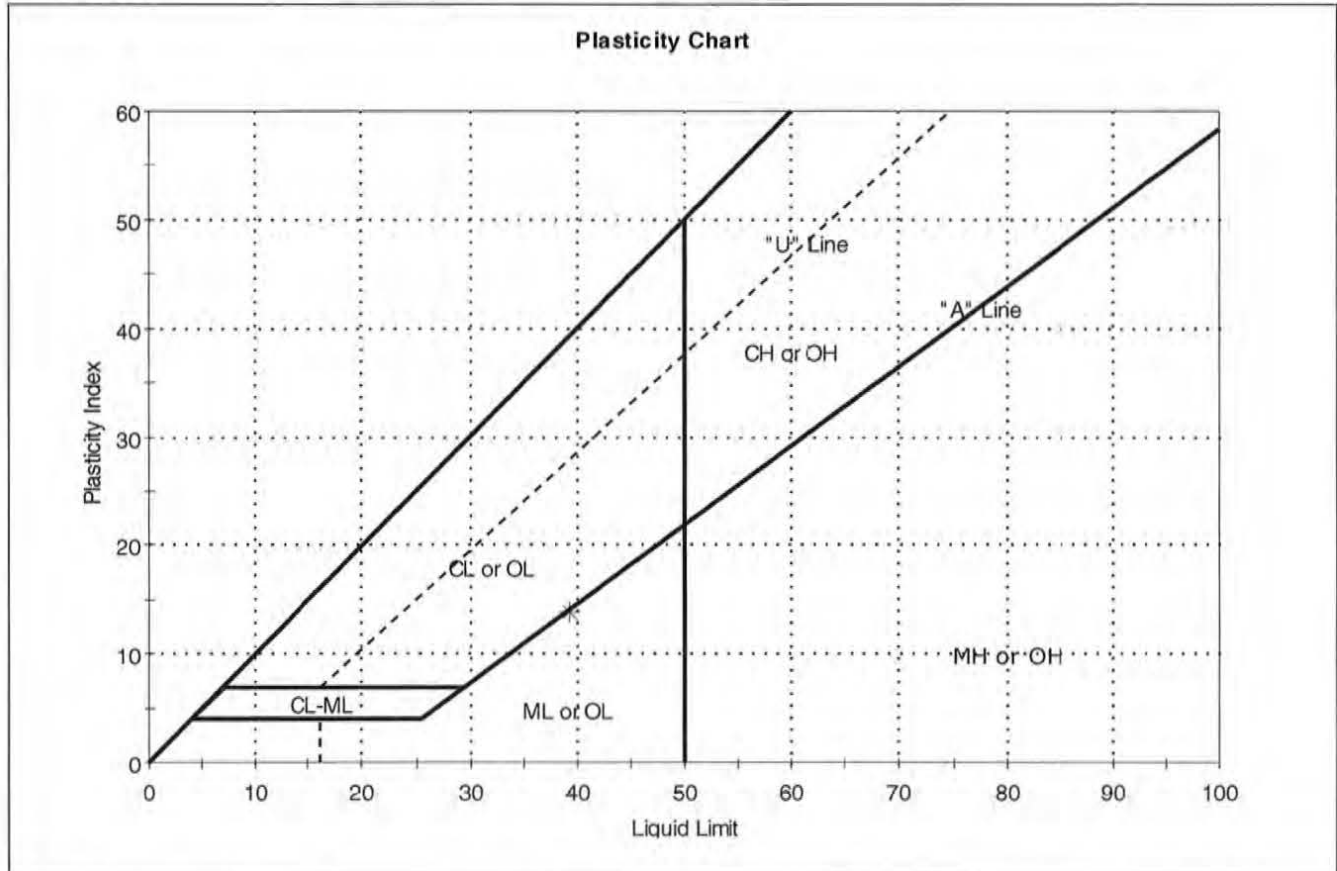






|                     |                           |              |           |
|---------------------|---------------------------|--------------|-----------|
| Client:             | Moretrench American Corp. |              |           |
| Project:            | Shepley Landfill          |              |           |
| Location:           | Devens, MA                | Project No:  | GTX-11659 |
| Boring ID:          | ---                       | Sample Type: | bag       |
| Sample ID:          | CLAY / SILT (Graves)      | Test Date:   | 03/30/12  |
| Depth :             | ---                       | Test Id:     | 233080    |
| Test Comment:       | ---                       |              |           |
| Sample Description: | Moist, olive brown silt   |              |           |
| Sample Comment:     | ---                       |              |           |

## Atterberg Limits - ASTM D 4318-05



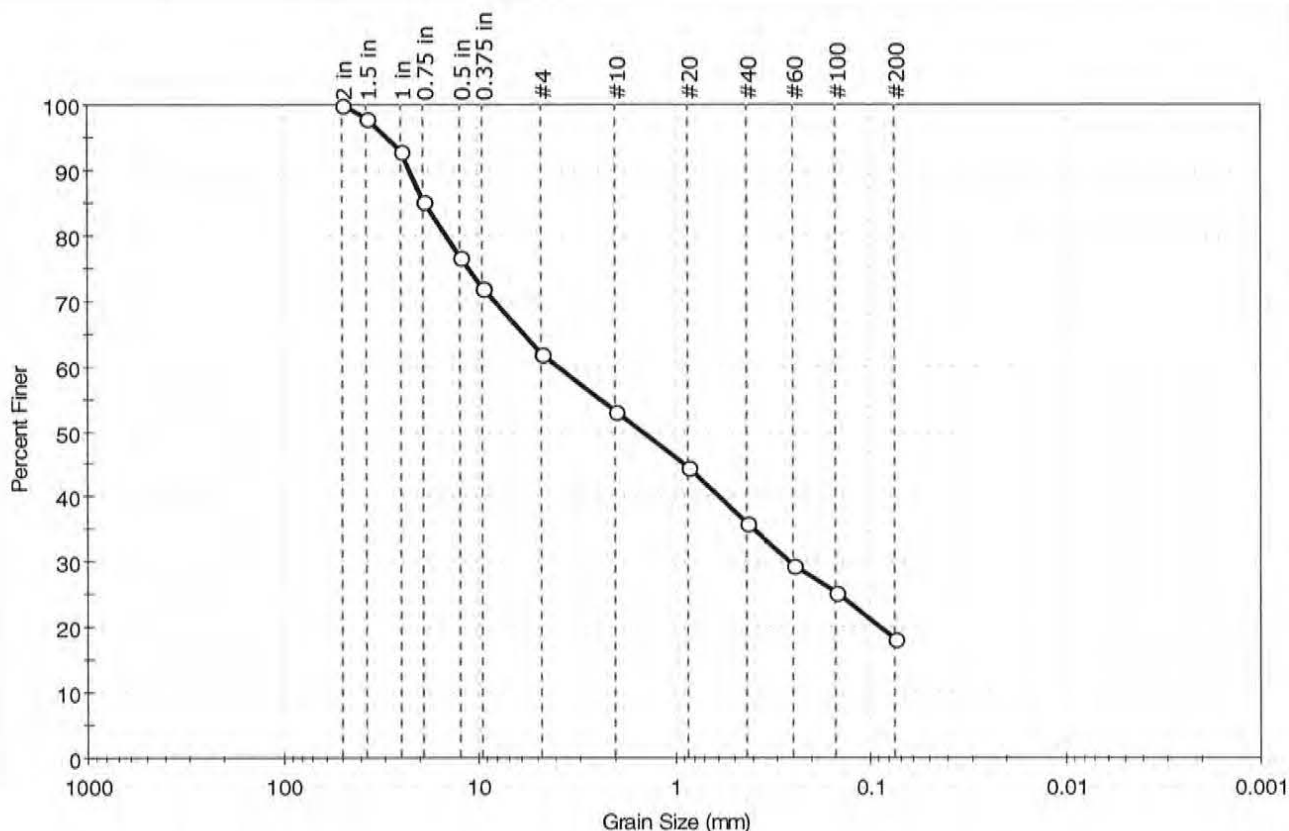
| Symbol | Sample ID            | Boring | Depth | Natural Moisture Content, % | Liquid Limit | Plastic Limit | Plasticity Index | Liquidity Index | Soil Classification |
|--------|----------------------|--------|-------|-----------------------------|--------------|---------------|------------------|-----------------|---------------------|
| *      | CLAY / SILT (Graves) | ---    | ---   | 26                          | 39           | 26            | 13               | 0               | silt (ML)           |

Sample Prepared using the WET method  
 0% Retained on #40 Sieve  
 Dry Strength: HIGH  
 Dilatancy: RAPID  
 Toughness: LOW



|                                                         |                       |
|---------------------------------------------------------|-----------------------|
| Client: Moretrench American Corp.                       | Project No: GTX-11659 |
| Project: Shepley Landfill                               |                       |
| Location: Devens, MA                                    |                       |
| Boring ID: ---                                          | Sample Type: bucket   |
| Sample ID: No. 4                                        | Test Date: 05/01/12   |
| Depth: ---                                              | Test Id: 235129       |
| Test Comment: ---                                       | Tested By: jbr        |
| Sample Description: Moist, brown silty sand with gravel | Checked By: jdt       |
| Sample Comment: ---                                     |                       |

## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
|----------|----------|--------|--------------------|
| —        | 38.1     | 43.5   | 18.4               |

| Sieve Name | Sieve Size, mm | Percent Finer | Spec. Percent | Complies |
|------------|----------------|---------------|---------------|----------|
| 2 in       | 50.00          | 100           |               |          |
| 1.5 in     | 37.50          | 98            |               |          |
| 1 in       | 25.00          | 93            |               |          |
| 0.75 in    | 19.00          | 85            |               |          |
| 0.5 in     | 12.50          | 77            |               |          |
| 0.375 in   | 9.50           | 72            |               |          |
| #4         | 4.75           | 62            |               |          |
| #10        | 2.00           | 53            |               |          |
| #20        | 0.85           | 44            |               |          |
| #40        | 0.42           | 36            |               |          |
| #60        | 0.25           | 29            |               |          |
| #100       | 0.15           | 25            |               |          |
| #200       | 0.075          | 18            |               |          |

### Coefficients

|                              |                             |
|------------------------------|-----------------------------|
| D <sub>85</sub> = 18.7488 mm | D <sub>30</sub> = 0.2617 mm |
| D <sub>60</sub> = 3.9170 mm  | D <sub>15</sub> = N/A       |
| D <sub>50</sub> = 1.4623 mm  | D <sub>10</sub> = N/A       |
| C <sub>u</sub> = N/A         | C <sub>c</sub> = N/A        |

### Classification

ASTM N/A

AASHTO Stone Fragments, Gravel and Sand (A-1-b (0))

### Sample/Test Description

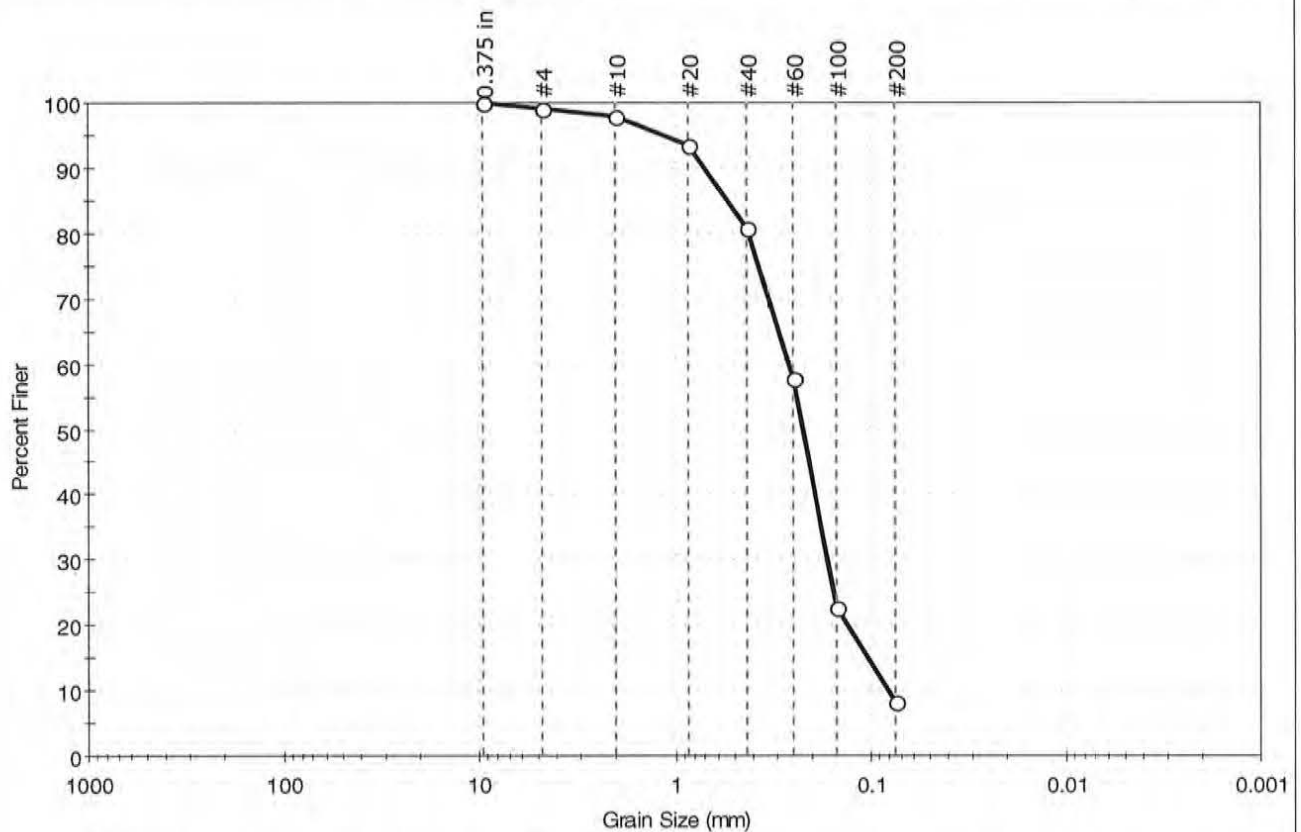
Sand/Gravel Particle Shape : ROUNDED

Sand/Gravel Hardness : HARD



|                                                 |                       |
|-------------------------------------------------|-----------------------|
| Client: Moretrench American Corp.               | Project No: GTX-11659 |
| Project: Shepley Landfill                       |                       |
| Location: Devens, MA                            |                       |
| Boring ID: ---                                  | Sample Type: bucket   |
| Sample ID: No. 5                                | Test Date: 05/02/12   |
| Depth: ---                                      | Test Id: 235131       |
| Test Comment: ---                               | Tested By: jbr        |
| Sample Description: Moist, brown sand with silt | Checked By: jdt       |
| Sample Comment: ---                             |                       |

## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
|----------|----------|--------|--------------------|
| —        | 0.8      | 90.9   | 8.3                |

| Sieve Name | Sieve Size, mm | Percent Finer | Spec. Percent | Complies |
|------------|----------------|---------------|---------------|----------|
| 0.375 in   | 9.50           | 100           |               |          |
| #4         | 4.75           | 99            |               |          |
| #10        | 2.00           | 98            |               |          |
| #20        | 0.85           | 93            |               |          |
| #40        | 0.42           | 81            |               |          |
| #60        | 0.25           | 58            |               |          |
| #100       | 0.15           | 23            |               |          |
| #200       | 0.075          | 8             |               |          |

### Coefficients

|                             |                             |
|-----------------------------|-----------------------------|
| D <sub>85</sub> = 0.5322 mm | D <sub>30</sub> = 0.1664 mm |
| D <sub>60</sub> = 0.2621 mm | D <sub>15</sub> = 0.1032 mm |
| D <sub>50</sub> = 0.2227 mm | D <sub>10</sub> = 0.0813 mm |
| C <sub>u</sub> = 3.224      | C <sub>c</sub> = 1.299      |

### Classification

**ASTM** Poorly graded sand with silt (SP-SM)

**AASHTO** Fine Sand (A-3 (0))

### Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---



|                     |                             |              |           |
|---------------------|-----------------------------|--------------|-----------|
| Client:             | Moretrench American Corp.   |              |           |
| Project:            | Shepley Landfill            |              |           |
| Location:           | Devens, MA                  | Project No:  | GTX-11659 |
| Boring ID:          | ---                         | Sample Type: | bucket    |
| Sample ID:          | No. 5                       | Test Date:   | 05/02/12  |
| Depth :             | ---                         | Test Id:     | 235133    |
| Test Comment:       | ---                         |              |           |
| Sample Description: | Moist, brown sand with silt |              |           |
| Sample Comment:     | ---                         |              |           |

## Atterberg Limits - ASTM D 4318-05

**Sample Determined to be non-plastic**

| Symbol | Sample ID | Boring | Depth | Natural Moisture Content, % | Liquid Limit | Plastic Limit | Plasticity Index | Liquidity Index | Soil Classification                  |
|--------|-----------|--------|-------|-----------------------------|--------------|---------------|------------------|-----------------|--------------------------------------|
| *      | No. 5     | ---    | ---   | 7                           | n/a          | n/a           | n/a              | n/a             | Poorly graded sand with silt (SP-SM) |

19% Retained on #40 Sieve

Dry Strength: NONE

Dilancy: RAPID

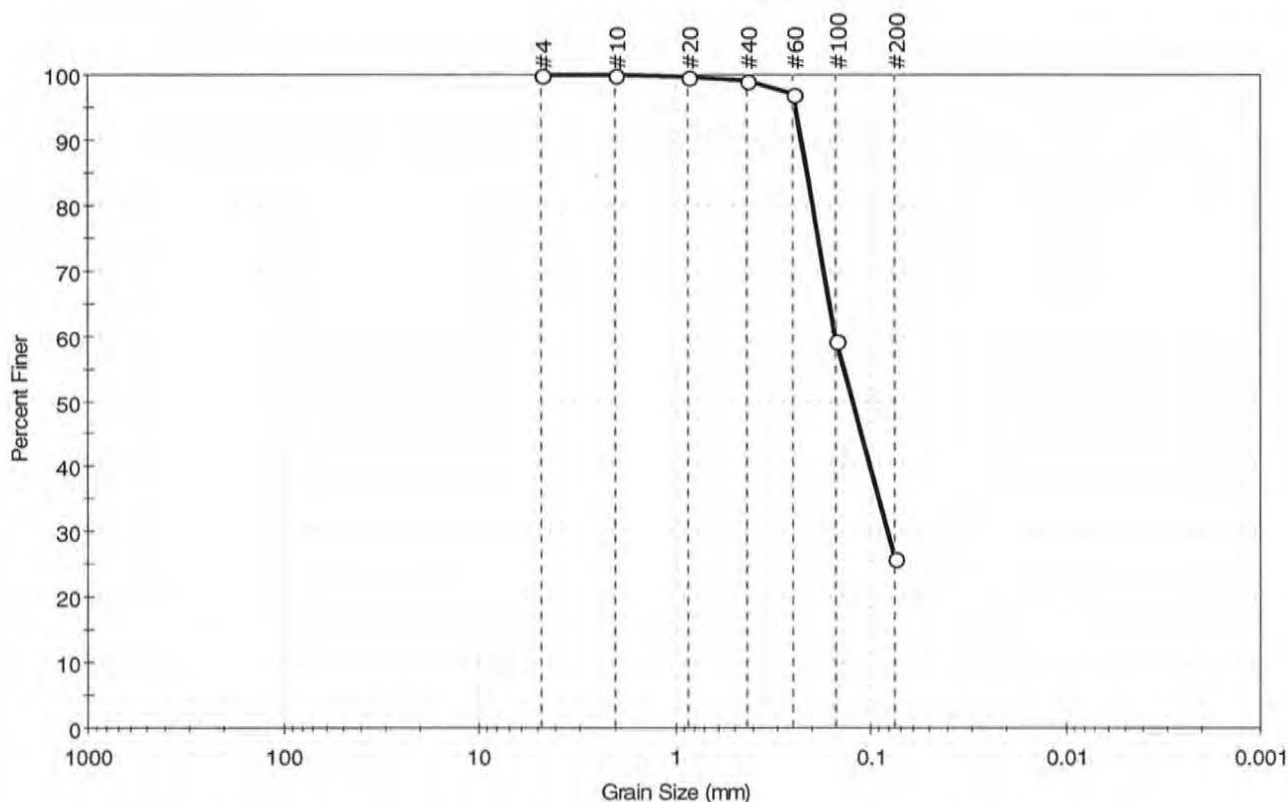
Toughness: n/a

The sample was determined to be Non-Plastic



|                                           |                       |
|-------------------------------------------|-----------------------|
| Client: Moretrench American Corp.         | Project No: GTX-11659 |
| Project: Shepley Landfill                 |                       |
| Location: Devens, MA                      |                       |
| Boring ID: ---                            | Sample Type: bucket   |
| Sample ID: No. 6                          | Test Date: 05/02/12   |
| Depth: ---                                | Test Id: 235130       |
| Test Comment: ---                         | Tested By: jbr        |
| Sample Description: Wet, brown silty sand | Checked By: jdt       |
| Sample Comment: ---                       |                       |

## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
|----------|----------|--------|--------------------|
| —        | 0.0      | 74.0   | 26.0               |

| Sieve Name | Sieve Size, mm | Percent Finer | Spec. Percent | Complies |
|------------|----------------|---------------|---------------|----------|
| #4         | 4.75           | 100           |               |          |
| #10        | 2.00           | 100           |               |          |
| #20        | 0.85           | 100           |               |          |
| #40        | 0.42           | 99            |               |          |
| #60        | 0.25           | 97            |               |          |
| #100       | 0.15           | 59            |               |          |
| #200       | 0.075          | 26            |               |          |

### Coefficients

|                             |                             |
|-----------------------------|-----------------------------|
| D <sub>85</sub> = 0.2124 mm | D <sub>30</sub> = 0.0815 mm |
| D <sub>60</sub> = 0.1514 mm | D <sub>15</sub> = N/A       |
| D <sub>50</sub> = 0.1236 mm | D <sub>10</sub> = N/A       |
| C <sub>u</sub> = N/A        | C <sub>c</sub> = N/A        |

### Classification

**ASTM** Silty sand (SM)

**AASHTO** Silty Gravel and Sand (A-2-4 (0))

### Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---



|                     |                           |              |           |
|---------------------|---------------------------|--------------|-----------|
| Client:             | Moretrench American Corp. |              |           |
| Project:            | Shepley Landfill          |              |           |
| Location:           | Devens, MA                | Project No:  | GTX-11659 |
| Boring ID:          | ---                       | Sample Type: | bucket    |
| Sample ID:          | No. 6                     | Test Date:   | 05/02/12  |
| Depth :             | ---                       | Test Id:     | 235132    |
| Test Comment:       | ---                       |              |           |
| Sample Description: | Wet, brown silty sand     |              |           |
| Sample Comment:     | ---                       |              |           |

## Atterberg Limits - ASTM D 4318-05

**Sample Determined to be non-plastic**

| Symbol | Sample ID | Boring | Depth | Natural Moisture Content, % | Liquid Limit | Plastic Limit | Plasticity Index | Liquidity Index | Soil Classification |
|--------|-----------|--------|-------|-----------------------------|--------------|---------------|------------------|-----------------|---------------------|
| *      | No. 6     | ---    | ---   | 38                          | n/a          | n/a           | n/a              | n/a             | Silty sand (SM)     |

1% Retained on #40 Sieve

Dry Strength: NONE

Dilatancy: RAPID

Toughness: n/a

The sample was determined to be Non-Plastic





|                   |                           |
|-------------------|---------------------------|
| Client:           | Moretrench American Corp. |
| Project Name:     | Shepley Landfill          |
| Project Location: | Devens, MA                |
| GTX #:            | 11659                     |
| Test Date:        | 05/17/12                  |
| Tested By:        | cwd                       |
| Checked By:       | jdt                       |

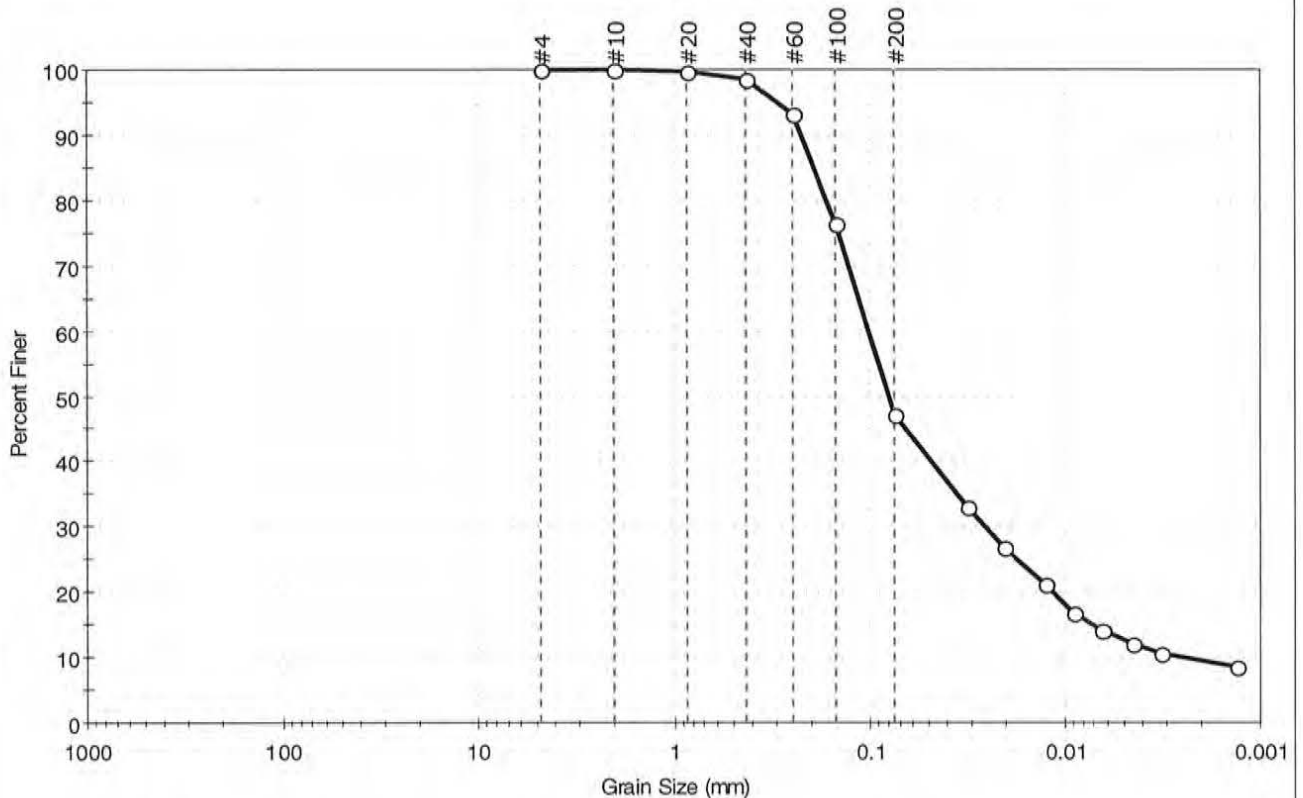
## Summary of Slurry Testing

| Slurry ID | Description                                          | pH  | Mud Balance<br>Density,<br>pcf | Marsh Funnel<br>Viscosity, sec | Filtrate Loss,<br>cm <sup>3</sup> |
|-----------|------------------------------------------------------|-----|--------------------------------|--------------------------------|-----------------------------------|
| 6%        | 6% Hydrogel Bentonite with Sample<br>3 Hydrant Water | 7.5 | 64.3                           | 61                             | 4.3                               |

Notes: Bentonite powder added to water on a weight basis

|                     |                               |              |           |
|---------------------|-------------------------------|--------------|-----------|
| Client:             | Moretrench American Corp.     | Project No:  | GTX-11659 |
| Project:            | Shepley Landfill              | Tested By:   | jbr       |
| Location:           | Devens, MA                    | Checked By:  | jdt       |
| Boring ID:          | ---                           | Sample Type: | ---       |
| Sample ID:          | MIX 1                         | Test Date:   | 05/18/12  |
| Depth:              | ---                           | Test Id:     | 236543    |
| Test Comment:       | ---                           |              |           |
| Sample Description: | Wet, olive silty, clayey sand |              |           |
| Sample Comment:     | Soil-Bentonite mix            |              |           |

## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
|----------|----------|--------|--------------------|
| —        | 0.0      | 52.9   | 47.1               |

| Sieve Name | Sieve Size, mm     | Percent Finer | Spec. Percent | Complies |
|------------|--------------------|---------------|---------------|----------|
| #4         | 4.75               | 100           |               |          |
| #10        | 2.00               | 100           |               |          |
| #20        | 0.85               | 100           |               |          |
| #40        | 0.425              | 98            |               |          |
| #60        | 0.25               | 93            |               |          |
| #100       | 0.15               | 76            |               |          |
| #200       | 0.075              | 47            |               |          |
| ---        | Particle Size (mm) | Percent Finer | Spec. Percent | Complies |
| ---        | 0.0318             | 33            |               |          |
| ---        | 0.0208             | 27            |               |          |
| ---        | 0.0125             | 21            |               |          |
| ---        | 0.0085             | 17            |               |          |
| ---        | 0.0063             | 14            |               |          |
| ---        | 0.0045             | 12            |               |          |
| ---        | 0.0032             | 11            |               |          |
| ---        | 0.0013             | 8             |               |          |

### Coefficients

|                             |                             |
|-----------------------------|-----------------------------|
| D <sub>85</sub> = 0.1943 mm | D <sub>30</sub> = 0.0259 mm |
| D <sub>60</sub> = 0.1017 mm | D <sub>15</sub> = 0.0071 mm |
| D <sub>50</sub> = 0.0803 mm | D <sub>10</sub> = 0.0026 mm |
| C <sub>u</sub> = N/A        | C <sub>c</sub> = N/A        |

### Classification

**ASTM** Silty, clayey sand (SC-SM)

**AASHTO** Silty Soils (A-4 (0))

### Sample/Test Description

Sand/Gravel Particle Shape : ---

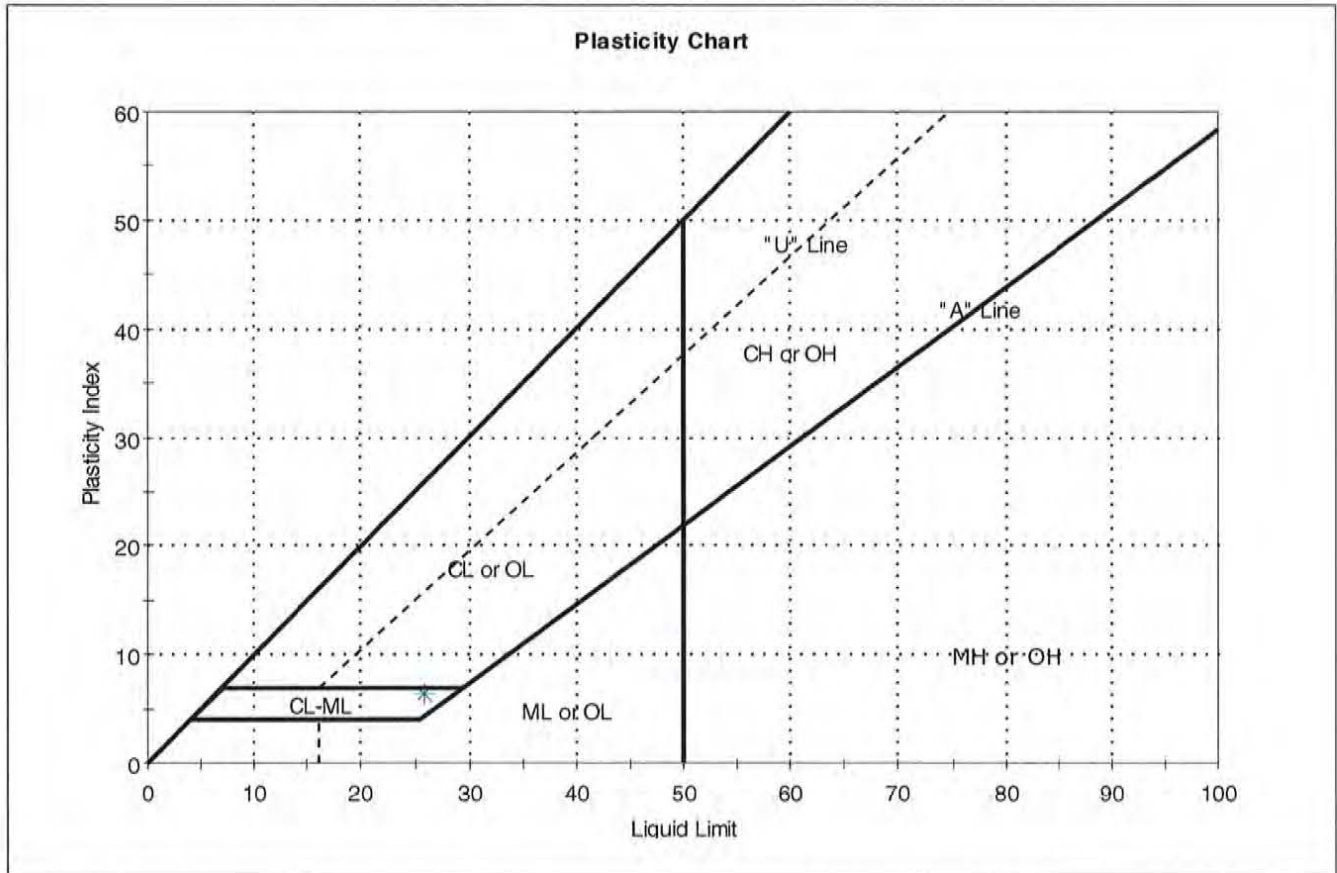
Sand/Gravel Hardness : ---





|                     |                               |              |           |
|---------------------|-------------------------------|--------------|-----------|
| Client:             | Moretrench American Corp.     |              |           |
| Project:            | Shepley Landfill              |              |           |
| Location:           | Devens, MA                    | Project No:  | GTX-11659 |
| Boring ID:          | ---                           | Sample Type: | ---       |
| Sample ID:          | MIX 1                         | Test Date:   | 05/25/12  |
| Depth :             | ---                           | Test Id:     | 236545    |
| Test Comment:       | ---                           |              |           |
| Sample Description: | Wet, olive silty, clayey sand |              |           |
| Sample Comment:     | Soil-Bentonite mix            |              |           |

## Atterberg Limits - ASTM D 4318-05



| Symbol | Sample ID | Boring | Depth | Natural Moisture Content, % | Liquid Limit | Plastic Limit | Plasticity Index | Liquidity Index | Soil Classification        |
|--------|-----------|--------|-------|-----------------------------|--------------|---------------|------------------|-----------------|----------------------------|
| *      | MIX 1     | ---    | ---   | 36                          | 26           | 19            | 7                | 2               | Silty, clayey sand (SC-SM) |

Sample Prepared using the WET method  
 2% Retained on #40 Sieve  
 Dry Strength: HIGH  
 Dilatancy: SLOW  
 Toughness: LOW



|                     |                                                    |             |     |
|---------------------|----------------------------------------------------|-------------|-----|
| Client:             | Moretrench American Corp.                          |             |     |
| Project Name:       | Shepley Landfill                                   |             |     |
| Project Location:   | Devens, MA                                         |             |     |
| GTX #:              | 11659                                              |             |     |
| Start Date:         | 5/18/2012                                          | Tested By:  | ema |
| End Date:           | 5/30/2012                                          | Checked By: | jdt |
| Boring #:           | ---                                                |             |     |
| Sample #:           | MIX 1                                              |             |     |
| Depth:              | ---                                                |             |     |
| Visual Description: | Wet, olive silty, clayey sand (soil-bentonite mix) |             |     |

## Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter by ASTM D 5084 Constant Volume

|                     |                                                                                                                        |                 |                          |
|---------------------|------------------------------------------------------------------------------------------------------------------------|-----------------|--------------------------|
| Sample Type:        | Remolded                                                                                                               | Permeant Fluid: | De-aired Distilled water |
| Orientation:        | Vertical                                                                                                               | Cell #:         | 5/12/15                  |
| Sample Preparation: | Test specimen compacted with moderate effort at the mix prepared moisture content . Trimmings moisture content = 35.3% |                 |                          |

| Parameter               | Initial | Final |
|-------------------------|---------|-------|
| Height, in              | 2.71    | 2.14  |
| Diameter, in            | 2.85    | 2.70  |
| Area, in <sup>2</sup>   | 6.38    | 5.73  |
| Volume, in <sup>3</sup> | 17.3    | 12.3  |
| Mass, g                 | 447     | 404   |
| Bulk Density, pcf       | 98.3    | 125   |
| Moisture Content, %     | 38.5    | 25.2  |
| Dry Density, pcf        | 71.0    | 100   |
| Degree of Saturation, % | ---     | 97    |

### B COEFFICIENT DETERMINATION

|                       |      |                          |      |
|-----------------------|------|--------------------------|------|
| Cell Pressure, psi:   | 95.2 | Pressure Increment, psi: | 5.02 |
| Sample Pressure, psi: | 90.3 | B Coefficient:           | 0.97 |

### FLOW DATA

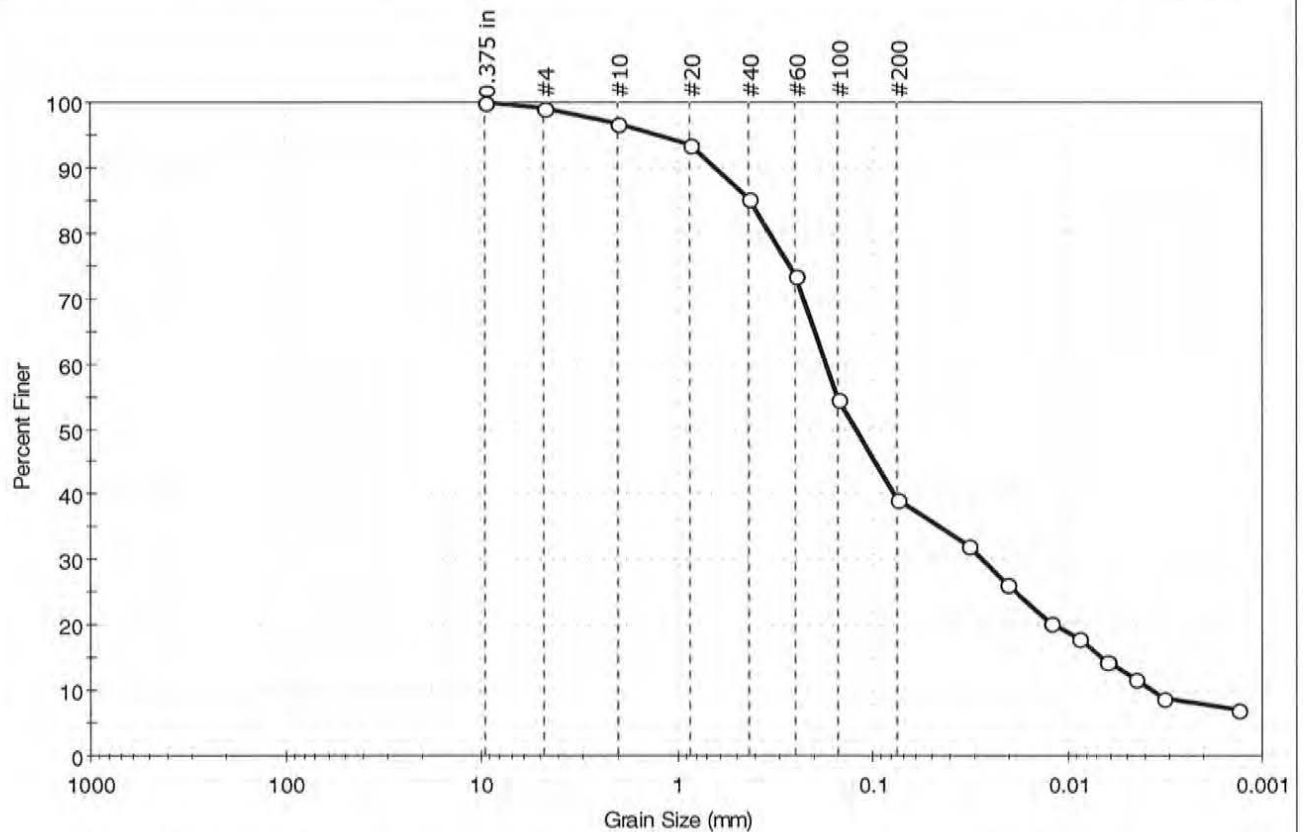
| Date  | Trial # | Pressure, psi |        | Manometer Readings |                |                                | Elapsed Time, sec | Gradient | Permeability K, cm/sec | Temp, °C | R <sub>t</sub> | Permeability K @ 20 °C, cm/sec |
|-------|---------|---------------|--------|--------------------|----------------|--------------------------------|-------------------|----------|------------------------|----------|----------------|--------------------------------|
|       |         | Cell          | Sample | Z <sub>1</sub>     | Z <sub>2</sub> | Z <sub>1</sub> -Z <sub>2</sub> |                   |          |                        |          |                |                                |
| 05/29 | 2       | 90            | 85     | 10.0               | 9.5            | 0.5                            | 77                | 23.2     | 2.4E-07                | 20       | 1.000          | 2.4E-07                        |
| 05/29 | 3       | 90            | 85     | 10.0               | 9.5            | 0.5                            | 85                | 23.2     | 2.2E-07                | 20       | 1.000          | 2.2E-07                        |
| 05/29 | 4       | 90            | 85     | 10.0               | 9.5            | 0.5                            | 89                | 23.2     | 2.1E-07                | 20       | 1.000          | 2.1E-07                        |
| 05/29 | 5       | 90            | 85     | 10.0               | 9.5            | 0.5                            | 91                | 23.2     | 2.1E-07                | 20       | 1.000          | 2.1E-07                        |

**PERMEABILITY AT 20° C:  $2.2 \times 10^{-7}$  cm/sec (@ 5 psi effective stress)**



|                                            |                       |
|--------------------------------------------|-----------------------|
| Client: Moretrench American Corp.          | Project No: GTX-11659 |
| Project: Shepley Landfill                  | Tested By: jbr        |
| Location: Devens, MA                       | Checked By: jdt       |
| Boring ID: ---                             | Sample Type: ---      |
| Sample ID: MIX 2                           | Test Date: 05/18/12   |
| Depth: ---                                 | Test Id: 236544       |
| Test Comment: ---                          |                       |
| Sample Description: Wet, olive clayey sand |                       |
| Sample Comment: Soil-Bentonite mix         |                       |

## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
|----------|----------|--------|--------------------|
| ---      | 0.9      | 59.9   | 39.2               |

| Sieve Name | Sieve Size, mm     | Percent Finer | Spec. Percent | Complies |
|------------|--------------------|---------------|---------------|----------|
| 0.375 in   | 9.50               | 100           |               |          |
| #4         | 4.75               | 99            |               |          |
| #10        | 2.00               | 97            |               |          |
| #20        | 0.85               | 93            |               |          |
| #40        | 0.42               | 85            |               |          |
| #60        | 0.25               | 74            |               |          |
| #100       | 0.15               | 55            |               |          |
| #200       | 0.075              | 39            |               |          |
| ---        | Particle Size (mm) | Percent Finer | Spec. Percent | Complies |
| ---        | 0.0324             | 32            |               |          |
| ---        | 0.0207             | 26            |               |          |
| ---        | 0.0123             | 20            |               |          |
| ---        | 0.0088             | 18            |               |          |
| ---        | 0.0063             | 14            |               |          |
| ---        | 0.0045             | 12            |               |          |
| ---        | 0.0032             | 9             |               |          |
| ---        | 0.0013             | 7             |               |          |

### Coefficients

|                             |                             |
|-----------------------------|-----------------------------|
| D <sub>85</sub> = 0.4195 mm | D <sub>30</sub> = 0.0274 mm |
| D <sub>60</sub> = 0.1739 mm | D <sub>15</sub> = 0.0067 mm |
| D <sub>50</sub> = 0.1224 mm | D <sub>10</sub> = 0.0036 mm |
| C <sub>u</sub> = N/A        | C <sub>c</sub> = N/A        |

### Classification

ASTM Clayey sand (SC)

AASHTO Silty Soils (A-4 (0))

### Sample/Test Description

Sand/Gravel Particle Shape : ROUNDED

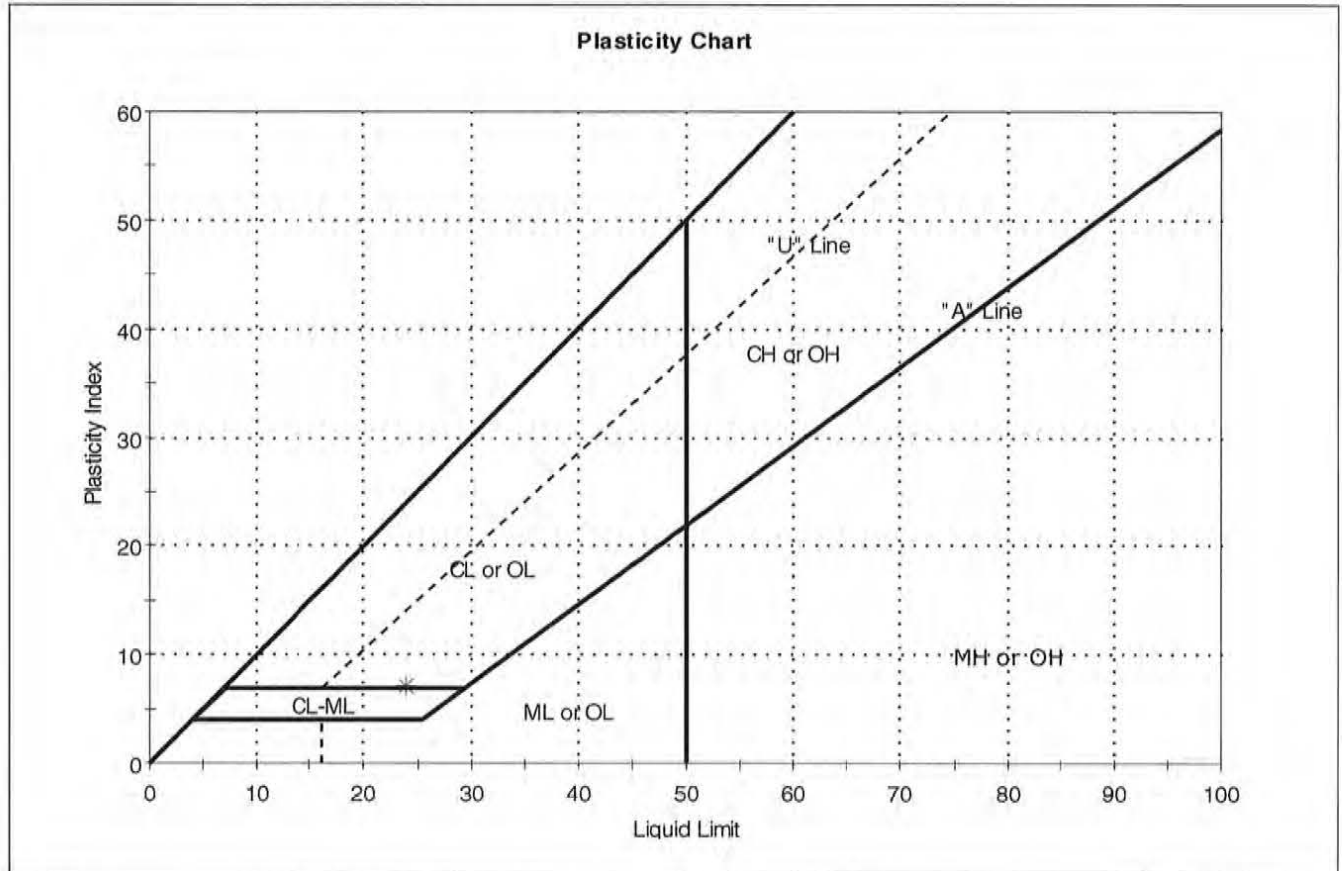
Sand/Gravel Hardness : HARD





|                     |                           |              |           |
|---------------------|---------------------------|--------------|-----------|
| Client:             | Moretrench American Corp. | Project No:  | GTX-11659 |
| Project:            | Shepley Landfill          | Tested By:   | cam       |
| Location:           | Devens, MA                | Checked By:  | jdt       |
| Boring ID:          | ---                       | Sample Type: | ---       |
| Sample ID:          | MIX 2                     | Test Date:   | 05/25/12  |
| Depth :             | ---                       | Test Id:     | 236546    |
| Test Comment:       | ---                       |              |           |
| Sample Description: | Wet, olive clayey sand    |              |           |
| Sample Comment:     | Soil-Bentonite mix        |              |           |

## Atterberg Limits - ASTM D 4318-05



| Symbol | Sample ID | Boring | Depth | Natural Moisture Content, % | Liquid Limit | Plastic Limit | Plasticity Index | Liquidity Index | Soil Classification |
|--------|-----------|--------|-------|-----------------------------|--------------|---------------|------------------|-----------------|---------------------|
| *      | MIX 2     | ---    | ---   | 33                          | 24           | 17            | 7                | 2               | Clayey sand (SC)    |

Sample Prepared using the WET method  
 15% Retained on #40 Sieve  
 Dry Strength: VERY HIGH  
 Dilatancy: SLOW  
 Toughness: LOW



|                     |                                             |             |     |
|---------------------|---------------------------------------------|-------------|-----|
| Client:             | Moretrench American Corp.                   |             |     |
| Project Name:       | Shepley Landfill                            |             |     |
| Project Location:   | Devens, MA                                  |             |     |
| GTX #:              | 11659                                       |             |     |
| Start Date:         | 5/18/2012                                   | Tested By:  | ema |
| End Date:           | 5/30/2012                                   | Checked By: | jdt |
| Boring #:           | ---                                         |             |     |
| Sample #:           | MIX 2                                       |             |     |
| Depth:              | ---                                         |             |     |
| Visual Description: | Wet, olive clayey sand (soil-bentonite mix) |             |     |

## Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter by ASTM D 5084 Constant Volume

|                     |                                                                                                         |                 |                          |
|---------------------|---------------------------------------------------------------------------------------------------------|-----------------|--------------------------|
| Sample Type:        | Remolded                                                                                                | Permeant Fluid: | De-aired Distilled water |
| Orientation:        | Vertical                                                                                                | Cell #:         | 12/3/2                   |
| Sample Preparation: | Target Compaction: Moderate effort at as prepared Moisture Content . Trimmings moisture content = 32.0% |                 |                          |

| Parameter               | Initial | Final |
|-------------------------|---------|-------|
| Height, in              | 2.58    | 2.10  |
| Diameter, in            | 2.85    | 2.76  |
| Area, in <sup>2</sup>   | 6.38    | 5.98  |
| Volume, in <sup>3</sup> | 16.5    | 12.6  |
| Mass, g                 | 459     | 411   |
| Bulk Density, pcf       | 106     | 124   |
| Moisture Content, %     | 32.8    | 18.9  |
| Dry Density, pcf        | 79.8    | 105   |
| Degree of Saturation, % | ---     | 83    |

### B COEFFICIENT DETERMINATION

|                       |       |                          |       |
|-----------------------|-------|--------------------------|-------|
| Cell Pressure, psi:   | 94.94 | Pressure Increment, psi: | 4.96  |
| Sample Pressure, psi: | 90.2  | B Coefficient:           | 0.959 |

### FLOW DATA

| Date | Trial # | Pressure, psi |        | Manometer Readings |                |                                | Elapsed Time, sec | Gradient | Permeability K <sub>r</sub> cm/sec | Temp, °C | R <sub>t</sub> | Permeability K @ 20 °C, cm/sec |
|------|---------|---------------|--------|--------------------|----------------|--------------------------------|-------------------|----------|------------------------------------|----------|----------------|--------------------------------|
|      |         | Cell          | Sample | Z <sub>1</sub>     | Z <sub>2</sub> | Z <sub>1</sub> -Z <sub>2</sub> |                   |          |                                    |          |                |                                |
| 5/21 | 1       | 90            | 85     | 10.0               | 9.8            | 0.2                            | 60                | 23.6     | 1.2E-07                            | 20       | 1.000          | 1.2E-07                        |
| 5/21 | 2       | 90            | 85     | 10.0               | 9.8            | 0.2                            | 62                | 23.6     | 1.1E-07                            | 20       | 1.000          | 1.1E-07                        |
| 5/21 | 3       | 90            | 85     | 10.0               | 9.8            | 0.2                            | 65                | 23.6     | 1.1E-07                            | 20       | 1.000          | 1.1E-07                        |
| 5/21 | 4       | 90            | 85     | 10.0               | 9.8            | 0.2                            | 65                | 23.6     | 1.1E-07                            | 20       | 1.000          | 1.1E-07                        |

**PERMEABILITY AT 20° C:  $1.1 \times 10^{-7}$  cm/sec (@ 5 psi effective stress)**



|                     |                                             |             |     |
|---------------------|---------------------------------------------|-------------|-----|
| Client:             | Moretrench American Corp.                   |             |     |
| Project Name:       | Shepley Landfill                            |             |     |
| Project Location:   | Devens, MA                                  |             |     |
| GTX #:              | 11659                                       |             |     |
| Start Date:         | 5/18/2012                                   | Tested By:  | ema |
| End Date:           | 5/30/2012                                   | Checked By: | jdt |
| Boring #:           | ---                                         |             |     |
| Sample #:           | MIX 2 (additional 0.5% bentonite added)     |             |     |
| Depth:              | ---                                         |             |     |
| Visual Description: | Wet, olive clayey sand (soil-bentonite mix) |             |     |

## Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter by ASTM D 5084 Constant Volume

|                     |                                                                                                                        |                 |                          |
|---------------------|------------------------------------------------------------------------------------------------------------------------|-----------------|--------------------------|
| Sample Type:        | Remolded                                                                                                               | Permeant Fluid: | De-aired Distilled water |
| Orientation:        | Vertical                                                                                                               | Cell #:         | 12/3/2                   |
| Sample Preparation: | Test specimen compacted with moderate effort at the mix prepared moisture content . Trimmings moisture content = 32.0% |                 |                          |

| Parameter               | Initial | Final |
|-------------------------|---------|-------|
| Height, in              | 2.08    | 1.95  |
| Diameter, in            | 2.85    | 2.73  |
| Area, in <sup>2</sup>   | 6.38    | 5.85  |
| Volume, in <sup>3</sup> | 13.3    | 11.4  |
| Mass, g                 | 410     | 402   |
| Bulk Density, pcf       | 118     | 134   |
| Moisture Content, %     | 21.3    | 18.9  |
| Dry Density, pcf        | 96.9    | 113   |
| Degree of Saturation, % | ---     | 99    |

### B COEFFICIENT DETERMINATION

|                       |      |                          |      |
|-----------------------|------|--------------------------|------|
| Cell Pressure, psi:   | 95.2 | Pressure Increment, psi: | 5.05 |
| Sample Pressure, psi: | 90.0 | B Coefficient:           | 0.95 |

### FLOW DATA

| Date | Trial # | Pressure, psi |        | Manometer Readings |                |                                | Elapsed Time, sec | Gradient | Permeability K <sub>r</sub> cm/sec | Temp, °C | R <sub>t</sub> | Permeability K @ 20 °C, cm/sec |
|------|---------|---------------|--------|--------------------|----------------|--------------------------------|-------------------|----------|------------------------------------|----------|----------------|--------------------------------|
|      |         | Cell          | Sample | Z <sub>1</sub>     | Z <sub>2</sub> | Z <sub>1</sub> -Z <sub>2</sub> |                   |          |                                    |          |                |                                |
| 5/29 | 1       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 82                | 25.4     | 4.0E-08                            | 20       | 1.000          | 4.0E-08                        |
| 5/29 | 2       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 84                | 25.4     | 3.9E-08                            | 20       | 1.000          | 3.9E-08                        |
| 5/29 | 3       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 86                | 25.4     | 3.8E-08                            | 20       | 1.000          | 3.8E-08                        |
| 5/29 | 4       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 88                | 25.4     | 3.7E-08                            | 20       | 1.000          | 3.7E-08                        |

**PERMEABILITY AT 20° C:  $3.9 \times 10^{-8}$  cm/sec (@ 5 psi effective stress)**





|                     |                                         |             |     |
|---------------------|-----------------------------------------|-------------|-----|
| Client:             | Moretrench American Corp.               |             |     |
| Project Name:       | Shepley Landfill                        |             |     |
| Project Location:   | Devens, MA                              |             |     |
| GTX #:              | 11659                                   |             |     |
| Start Date:         | 6/11/2012                               | Tested By:  | ema |
| End Date:           | 7/19/2012                               | Checked By: | jdt |
| Boring #:           | ---                                     |             |     |
| Sample #:           | MIX 2 (additional 0.5% bentonite added) |             |     |
| Depth:              | ---                                     |             |     |
| Visual Description: | Moist, brown soil/ bentonite mix        |             |     |

## Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter by ASTM D 5084 Constant Gradient

Sample Type:

remolded

Permeant Fluid:

Leachate (provided by client)

Orientation:

Vertical

Cell #:

3/9

Sample Preparation:

Test specimen compacted with moderate effort at the as-prepared mix moisture content. Trimmings moisture content = 31.6%.

| Parameter               | Initial | Final |
|-------------------------|---------|-------|
| Height, in              | 2.47    | 2.43  |
| Diameter, in            | 2.85    | 2.71  |
| Area, in <sup>2</sup>   | 6.38    | 5.77  |
| Volume, in <sup>3</sup> | 15.8    | 14.0  |
| Mass, g                 | 542     | 483   |
| Bulk Density, pcf       | 131     | 131   |
| Moisture Content, %     | 37.8    | 22.8  |
| Dry Density, pcf        | 94.9    | 107   |
| Degree of Saturation, % | ---     | 99    |

| B COEFFICIENT DETERMINATION |           |               |       |        |          |                          |       |       |       |          |                |                                |
|-----------------------------|-----------|---------------|-------|--------|----------|--------------------------|-------|-------|-------|----------|----------------|--------------------------------|
| Cell Pressure, psi:         |           | 95.1          |       |        |          | Pressure Increment, psi: |       | 5.00  |       |          |                |                                |
| Sample Pressure, psi:       |           | 90.1          |       |        |          | B Coefficient:           |       | 0.99  |       |          |                |                                |
| FLOW DATA                   |           |               |       |        |          |                          |       |       |       |          |                |                                |
| Date                        | Time, sec | Pressure, psi |       |        | Gradient | Flow Volume, cc          |       |       |       | Temp, °C | R <sub>t</sub> | Permeability K @ 20 °C, cm/sec |
|                             |           | Cell          | Inlet | Outlet |          | In                       | Out   | Δ In  | Δ Out |          |                |                                |
| 7/10                        | ---       | 90.0          | 86.0  | 84.0   | 22.8     | 7.00                     | 11.00 | ---   | ---   | ---      | ---            | ---                            |
| 7/11                        | 86700     | 90.0          | 86.0  | 84.0   | 22.8     | 13.00                    | 5.00  | 6.00  | 6.00  | 20       | 1.000          | 8.2E-08                        |
| 7/11                        | ----      | 90.0          | 86.0  | 84.0   | 22.8     | 7.00                     | 11.00 | ---   | ---   | ---      | ---            | ---                            |
| 7/12                        | 83400     | 90.0          | 86.0  | 84.0   | 22.8     | 13.10                    | 5.00  | 6.10  | 6.00  | 20       | 1.000          | 8.6E-08                        |
| 7/12                        | ----      | 90.0          | 86.0  | 84.0   | 22.8     | 6.20                     | 11.90 | ---   | ---   | ---      | ---            | ---                            |
| 7/13                        | 79800     | 90.0          | 86.0  | 84.0   | 22.8     | 11.90                    | 6.20  | 5.70  | 5.70  | 20       | 1.000          | 8.4E-08                        |
| 7/13                        | ----      | 90.0          | 86.0  | 84.0   | 22.8     | 3.30                     | 20.20 | ---   | ---   | ---      | ---            | ---                            |
| 7/16                        | 240480    | 90.0          | 86.0  | 84.0   | 22.8     | 21.20                    | 2.60  | 17.90 | 17.60 | 20       | 1.000          | 8.7E-08                        |

PERMEABILITY AT 20° C:  $8.5 \times 10^{-8}$  cm/sec (@ 5 psi effective stress)

## WARRANTY and LIABILITY

GeoTesting Express (GTX) warrants that all tests it performs are run in general accordance with the specified test procedures and accepted industry practice. GTX will correct or repeat any test that does not comply with this warranty. GTX has no specific knowledge as to conditioning, origin, sampling procedure or intended use of the material.

GTX may report engineering parameters that require us to interpret the test data. Such parameters are determined using accepted engineering procedures. However, GTX does not warrant that these parameters accurately reflect the true engineering properties of the *in situ* material. Responsibility for interpretation and use of the test data and these parameters for engineering and/or construction purposes rests solely with the user and not with GTX or any of its employees.

GTX's liability will be limited to correcting or repeating a test which fails our warranty. GTX's liability for damages to the Purchaser of testing services for any cause whatsoever shall be limited to the amount GTX received for the testing services. GTX will not be liable for any damages, or for any lost benefits or other consequential damages resulting from the use of these test results, even if GTX has been advised of the possibility of such damages. GTX will not be responsible for any liability of the Purchaser to any third party.

## Commonly Used Symbols

|            |                                                                 |                       |                                                 |
|------------|-----------------------------------------------------------------|-----------------------|-------------------------------------------------|
| A          | pore pressure parameter for $\Delta\sigma_1 - \Delta\sigma_3$   | T                     | temperature                                     |
| B          | pore pressure parameter for $\Delta\sigma_3$                    | t                     | time                                            |
| CIU        | isotropically consolidated undrained triaxial shear test        | U, UC                 | unconfined compression test                     |
| CR         | compression ratio for one dimensional consolidation             | UU, Q                 | unconsolidated undrained triaxial test          |
| $C_c$      | coefficient of curvature, $(D_{30})^2 / (D_{10} \times D_{60})$ | $u_a$                 | pore gas pressure                               |
| $C_u$      | coefficient of uniformity, $D_{60}/D_{10}$                      | $u_e$                 | excess pore water pressure                      |
| $C_c$      | compression index for one dimensional consolidation             | $u, u_w$              | pore water pressure                             |
| $C_\alpha$ | coefficient of secondary compression                            | V                     | total volume                                    |
| $c_v$      | coefficient of consolidation                                    | $V_g$                 | volume of gas                                   |
| c          | cohesion intercept for total stresses                           | $V_s$                 | volume of solids                                |
| $c'$       | cohesion intercept for effective stresses                       | $V_v$                 | volume of voids                                 |
| D          | diameter of specimen                                            | $V_w$                 | volume of water                                 |
| $D_{10}$   | diameter at which 10% of soil is finer                          | $V_o$                 | initial volume                                  |
| $D_{15}$   | diameter at which 15% of soil is finer                          | v                     | velocity                                        |
| $D_{30}$   | diameter at which 30% of soil is finer                          | W                     | total weight                                    |
| $D_{50}$   | diameter at which 50% of soil is finer                          | $W_s$                 | weight of solids                                |
| $D_{60}$   | diameter at which 60% of soil is finer                          | $W_w$                 | weight of water                                 |
| $D_{85}$   | diameter at which 85% of soil is finer                          | w                     | water content                                   |
| $d_{50}$   | displacement for 50% consolidation                              | $w_c$                 | water content at consolidation                  |
| $d_{90}$   | displacement for 90% consolidation                              | $w_f$                 | final water content                             |
| $d_{100}$  | displacement for 100% consolidation                             | $w_l$                 | liquid limit                                    |
| E          | Young's modulus                                                 | $w_n$                 | natural water content                           |
| e          | void ratio                                                      | $w_p$                 | plastic limit                                   |
| $e_c$      | void ratio after consolidation                                  | $w_s$                 | shrinkage limit                                 |
| $e_o$      | initial void ratio                                              | $w_o, w_l$            | initial water content                           |
| G          | shear modulus                                                   | $\alpha$              | slope of $q_f$ versus $p_f$                     |
| $G_s$      | specific gravity of soil particles                              | $\alpha'$             | slope of $q_f$ versus $p_f'$                    |
| H          | height of specimen                                              | $\gamma_t$            | total unit weight                               |
| PI         | plasticity index                                                | $\gamma_d$            | dry unit weight                                 |
| i          | gradient                                                        | $\gamma_s$            | unit weight of solids                           |
| $K_o$      | lateral stress ratio for one dimensional strain                 | $\gamma_w$            | unit weight of water                            |
| k          | permeability                                                    | E                     | strain                                          |
| LI         | Liquidity Index                                                 | $E_{vol}$             | volume strain                                   |
| $m_v$      | coefficient of volume change                                    | $e_h, E_v$            | horizontal strain, vertical strain              |
| n          | porosity                                                        | $\mu$                 | Poisson's ratio, also viscosity                 |
| PI         | plasticity index                                                | $\sigma$              | normal stress                                   |
| $P_c$      | preconsolidation pressure                                       | $\sigma'$             | effective normal stress                         |
| p          | $(\sigma_1 + \sigma_3) / 2, (\sigma_v + \sigma_h) / 2$          | $\sigma_c, \sigma_c'$ | consolidation stress in isotropic stress system |
| $p'$       | $(\sigma'_1 + \sigma'_3) / 2, (\sigma'_v + \sigma'_h) / 2$      | $\sigma_h, \sigma_h'$ | horizontal normal stress                        |
| $p'_c$     | $p'$ at consolidation                                           | $\sigma_v, \sigma_v'$ | vertical normal stress                          |
| Q          | quantity of flow                                                | $\sigma_1$            | major principal stress                          |
| q          | $(\sigma_1 - \sigma_3) / 2$                                     | $\sigma_2$            | intermediate principal stress                   |
| $q_f$      | q at failure                                                    | $\sigma_3$            | minor principal stress                          |
| $q_o, q_i$ | initial q                                                       | $\tau$                | shear stress                                    |
| $q_c$      | q at consolidation                                              | $\phi$                | friction angle based on total stresses          |
| S          | degree of saturation                                            | $\phi'$               | friction angle based on effective stresses      |
| SL         | shrinkage limit                                                 | $\phi'_r$             | residual friction angle                         |
| $s_u$      | undrained shear strength                                        | $\phi_{ult}$          | $\phi$ for ultimate strength                    |
| T          | time factor for consolidation                                   |                       |                                                 |

#### **Item No. 4 – Off-Site Borrow Source Geotechnical Testing Results**



**SHEPLEY'S HILL LANDFILL  
BARRIER WALL**

**SUBMITTAL**

**SPECIFICATION SECTION 02300  
PARAGRAPH 1.4 A1.(a) & A1.(b)  
BORROW SOURCE**

**DATE SUBMITTED**

**8-6-12**

**Borrow Source: Shepley's Hill Landfill**

**W. J. Graves Construction Co. Inc.**

**192 Depot Road**

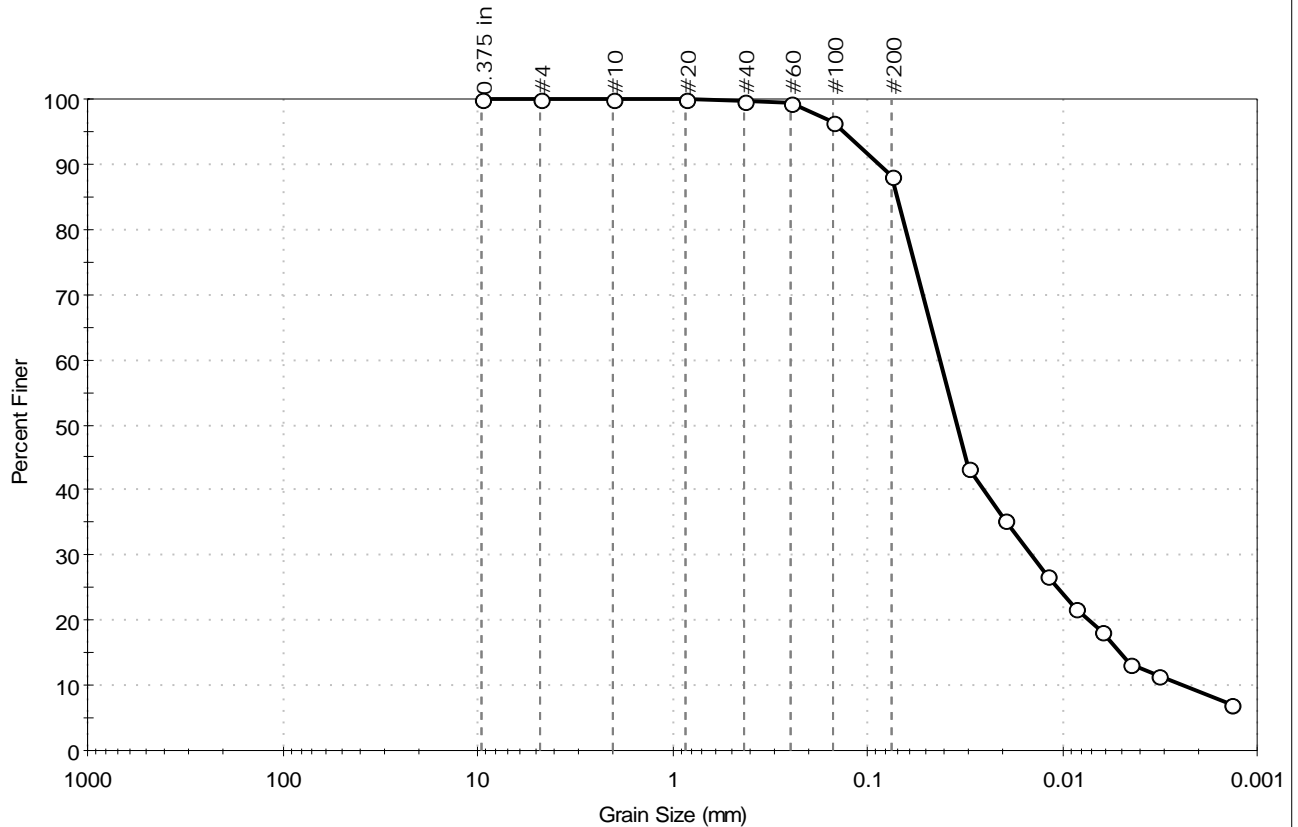
**Templeton, MA 01438**





|                                             |                       |                 |
|---------------------------------------------|-----------------------|-----------------|
| Client: Moretrench American Corp.           | Project No: GTX-11659 |                 |
| Project: Shepley Landfill                   |                       |                 |
| Location: Devens, MA                        | Sample Type: bag      | Tested By: jbr  |
| Boring ID: ---                              | Test Date: 03/30/12   | Checked By: jdt |
| Sample ID: CLAY / SILT (Graves)             | Test Id: 233079       |                 |
| Depth: ---                                  |                       |                 |
| Test Comment: ---                           |                       |                 |
| Sample Description: Moist, olive brown silt |                       |                 |
| Sample Comment: ---                         |                       |                 |

## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
|----------|----------|--------|--------------------|
| ---      | 0.1      | 11.7   | 88.2               |

| Sieve Name | Sieve Size, mm     | Percent Finer | Spec. Percent | Complies |
|------------|--------------------|---------------|---------------|----------|
| 0.375 in   | 9.50               | 100           |               |          |
| #4         | 4.75               | 100           |               |          |
| #10        | 2.00               | 100           |               |          |
| #20        | 0.85               | 100           |               |          |
| #40        | 0.42               | 100           |               |          |
| #60        | 0.25               | 99            |               |          |
| #100       | 0.15               | 97            |               |          |
| #200       | 0.075              | 88            |               |          |
| ---        | Particle Size (mm) | Percent Finer | Spec. Percent | Complies |
| ---        | 0.0303             | 43            |               |          |
| ---        | 0.0196             | 35            |               |          |
| ---        | 0.0119             | 27            |               |          |
| ---        | 0.0086             | 22            |               |          |
| ---        | 0.0062             | 18            |               |          |
| ---        | 0.0045             | 13            |               |          |
| ---        | 0.0032             | 11            |               |          |
| ---        | 0.0014             | 7             |               |          |

### Coefficients

|                             |                             |
|-----------------------------|-----------------------------|
| D <sub>85</sub> = 0.0702 mm | D <sub>30</sub> = 0.0144 mm |
| D <sub>60</sub> = 0.0424 mm | D <sub>15</sub> = 0.0050 mm |
| D <sub>50</sub> = 0.0347 mm | D <sub>10</sub> = 0.0024 mm |
| C <sub>u</sub> = N/A        | C <sub>c</sub> = N/A        |

### Classification

ASTM silt (ML)

AASHTO Clayey Soils (A-6 (14))

### Sample/Test Description

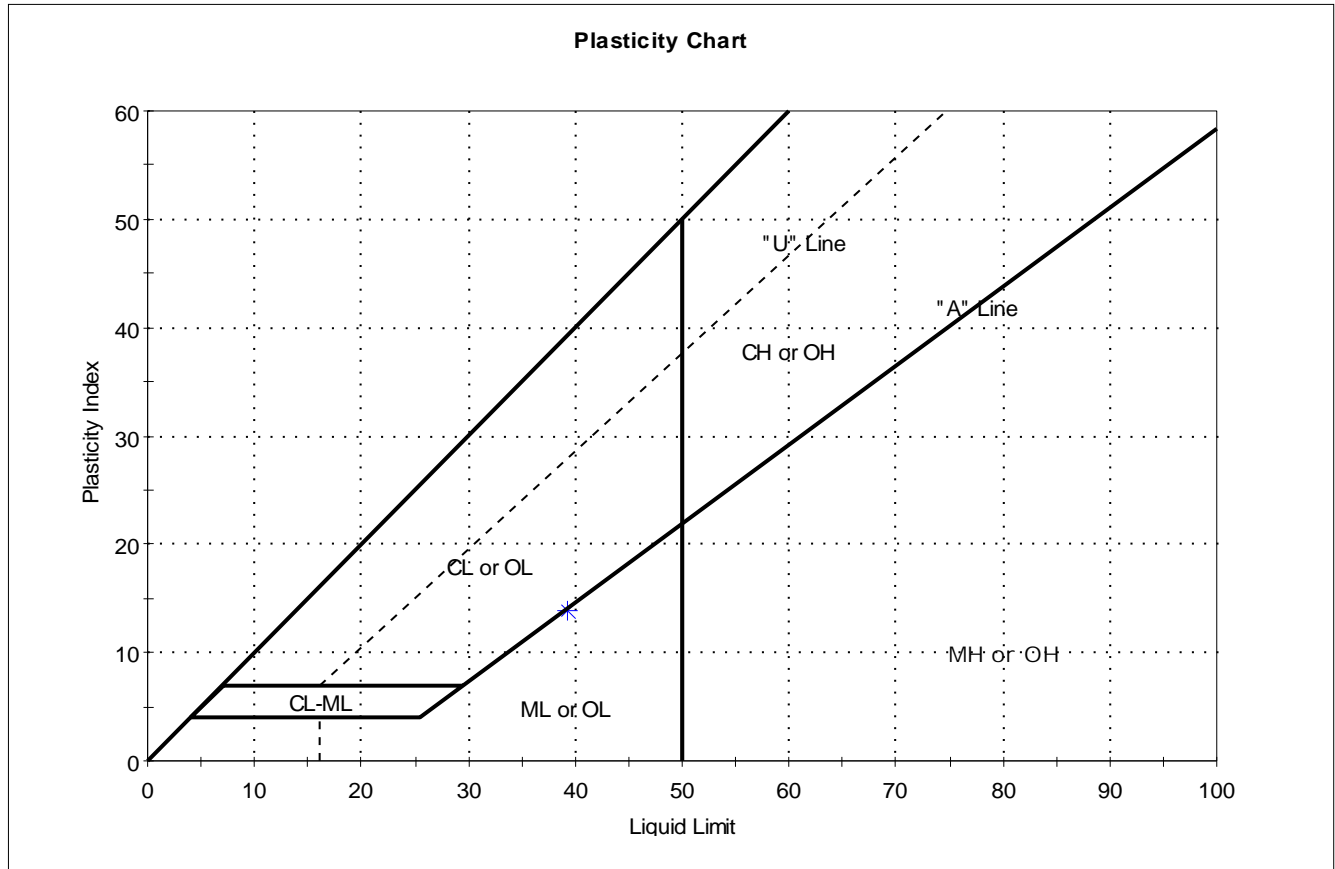
Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---



|                     |                           |              |           |
|---------------------|---------------------------|--------------|-----------|
| Client:             | Moretrench American Corp. |              |           |
| Project:            | Shepley Landfill          |              |           |
| Location:           | Devens, MA                | Project No:  | GTX-11659 |
| Boring ID:          | ---                       | Sample Type: | bag       |
| Sample ID:          | CLAY / SILT (Graves)      | Test Date:   | 03/30/12  |
| Depth :             | ---                       | Test Id:     | 233080    |
| Test Comment:       | ---                       |              |           |
| Sample Description: | Moist, olive brown silt   |              |           |
| Sample Comment:     | ---                       |              |           |

## Atterberg Limits - ASTM D 4318-05



| Symbol | Sample ID            | Boring | Depth | Natural Moisture Content, % | Liquid Limit | Plastic Limit | Plasticity Index | Liquidity Index | Soil Classification |
|--------|----------------------|--------|-------|-----------------------------|--------------|---------------|------------------|-----------------|---------------------|
| *      | CLAY / SILT (Graves) | ---    | ---   | 26                          | 39           | 26            | 13               | 0               | silt (ML)           |

Sample Prepared using the WET method

0% Retained on #40 Sieve

Dry Strength: HIGH

Dilatancy: RAPID

Toughness: LOW

JHN-20-2000 11.14 PHOENIX PROCESS EQUIP. 302 433 1813 P.13/14



PHOENIX Laboratory Outashed

W.J. Graves

I.D. 9082002

Particle Sizing Distribution Graph

| Mesh Size | Wt. Retained (gm) | Cumulative Wt. Retained (gm) | Percent of Total Wt. | Cumulative Wt. Percent | Percent of Solids Passing |
|-----------|-------------------|------------------------------|----------------------|------------------------|---------------------------|
| +1"       | 0.0000            | 0.0000                       | 0.00%                | 0.00%                  | 100.00%                   |
| +1/2"     | 0.0000            | 0.0000                       | 0.00%                | 0.00%                  | 100.00%                   |
| +1/4"     | 0.0000            | 0.0000                       | 0.00%                | 0.00%                  | 100.00%                   |
| +8        | 0.0000            | 0.0000                       | 0.00%                | 0.00%                  | 100.00%                   |
| +18       | 0.0000            | 0.0000                       | 0.00%                | 0.00%                  | 100.00%                   |
| +28       | 0.0100            | 0.0100                       | 0.25%                | 0.25%                  | 99.75%                    |
| +50       | 0.0100            | 0.0200                       | 0.25%                | 0.51%                  | 99.49%                    |
| +100      | 0.0100            | 0.0300                       | 15.52%               | 16.03%                 | 83.97%                    |
| +200      | 1.3000            | 1.8300                       | 33.08%               | 49.11%                 | 50.89%                    |
| +250      | 0.2500            | 2.2200                       | 7.38%                | 56.49%                 | 43.51%                    |
| +270      | 0.2300            | 2.4500                       | 5.85%                | 62.34%                 | 37.66%                    |
| +325      | 0.1000            | 2.5500                       | 2.54%                | 64.89%                 | 35.11%                    |
| +400      | 0.2300            | 2.7800                       | 5.85%                | 70.74%                 | 29.26%                    |
| -400      | 1.1500            | 3.9300                       | 29.26%               | 100.00%                | 0.00%                     |

Feed Solid% =

2.21%

| <b>TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR<br/>MANUFACTURER'S CERTIFICATES OF COMPLIANCE</b><br><i>(Read instructions on reverse side prior to initiating this form)</i> |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         | <b>DATE</b><br>August 7, 2012                |                                      | <b>TRANSMITTAL NO:</b><br><b>002</b>                                                                                                                         |                                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| <b>SECTION I - REQUEST FOR APPROVAL OF THE FOLLOWING ITEMS</b> (This section will be initiated by the Contractor)                                                                                   |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
| <b>TO:</b><br>Zachary Mothershed - Project Engineer<br>US Army Corps of Engineers<br>696 Virginia Road<br>Concord, MA 01742-2751                                                                    |                                                                                 |                                                                                              | <b>FROM:</b><br>Sovereign Consulting, Inc.<br>16 Chestnut Street, Suite 520<br>Foxboro, MA 02035                                                  |                                                                                                                                                                                                                                                                                                                         | <b>CONTRACT NO:</b><br>W912WJ-10-D-0003-0002 |                                      | <b>CHECK ONE:</b><br><input checked="" type="checkbox"/> THIS IS A NEW TRANSMITTAL<br><input type="checkbox"/> THIS IS A RESUBMITTAL OF<br>TRANSMITTAL _____ |                                |
| SPECIFICATION SECTION NO: (Cover only one section with each transmittal)<br><div style="text-align: center; font-weight: bold; font-size: 1.2em;">02215</div>                                       |                                                                                 |                                                                                              | PROJECT TITLE AND LOCATION:<br><div style="text-align: center;"> <b>Shepley's Hill Landfill<br/>Barrier Wall<br/>Devens, Massachusetts</b> </div> |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
| ITEM<br>NO.<br><br>a.                                                                                                                                                                               | DESCRIPTION OF ITEM SUBMITTED<br><br>(Type, size, model number, etc.)<br><br>b. | MFG. OR CONTR. CAT.<br>CURVE DRAWING OR<br>BROCHURE NO.<br>(See instruction No. 8)<br><br>c. | NO. OF<br>COPIES<br><br>d.                                                                                                                        | CONTRACT REFERENCE                                                                                                                                                                                                                                                                                                      |                                              | FOR CONTRACTOR<br>USE CODE<br><br>g. | VARIATION<br>(See instruction<br>No. 6)<br><br>h.                                                                                                            | FORCE<br>USE<br>CODE<br><br>i. |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   | DOCUMENT                                                                                                                                                                                                                                                                                                                |                                              |                                      |                                                                                                                                                              |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   | SPEC. PARA.<br>NO.<br><br>e.                                                                                                                                                                                                                                                                                            | DRAWING<br>SHEET NO.<br><br>f.               |                                      |                                                                                                                                                              |                                |
| 1                                                                                                                                                                                                   | Bentonite - Certification - 7/26/12 - 8/2/12 Delivery Dates                     | N/A                                                                                          | 1                                                                                                                                                 | 1.7                                                                                                                                                                                                                                                                                                                     | ~                                            | FIO                                  | ~                                                                                                                                                            |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
| REMARKS                                                                                                                                                                                             |                                                                                 |                                                                                              |                                                                                                                                                   | I certify that the above submitted items have been reviewed<br>in detail and correct and in strict conformance with the<br>contract drawings and specifications except as otherwise stated.<br><br><div style="text-align: right;"> <u>Thomas B. Hevner</u> <br/>         NAME AND SIGNATURE OF CONTRACTOR       </div> |                                              |                                      |                                                                                                                                                              |                                |
| <b>SECTION II - APPROVAL ACTION</b>                                                                                                                                                                 |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
| ENCLOSURES RETURNED (List by Item No.)                                                                                                                                                              |                                                                                 |                                                                                              | NAME, TITLE AND SIGNATURE OF APPROVING AUTHORITY                                                                                                  |                                                                                                                                                                                                                                                                                                                         |                                              |                                      | DATE                                                                                                                                                         |                                |

# WYO-BEN, INC.

## CERTIFICATE OF ANALYSIS

DATE: 08/06/12

TO: MORETRENCH AMERICAN CORP.

SHIP DATE: 07/31/12

PRODUCT: HYDROGEL

LOT NO.: 07311232

ORDER NO.: 74835

P.O.: 614827

TRUCK NO.: HI-BALL-70

EMAIL: [dguy@mtac.com](mailto:dguy@mtac.com)

THE FOLLOWING RESULTS WERE OBTAINED FROM TESTS RUN ON A  
COMPOSITE SAMPLE TAKEN FROM THE ABOVE LOT.

| Lot Number       | 07311232 | Specification    |
|------------------|----------|------------------|
| 600rpm Reading   | 46       | 30 Minimum       |
| 300rpm Reading   | 35       | No Specification |
| YP/PV RATIO      | 2.18     | 3.00 Maximum     |
| MOISTURE %       | 6.7      | No Specification |
| WATER LOSS       | 13.0     | 15.0 Maximum     |
| pH               | 9.9      | No Specification |
| WET SCREEN %-200 | 3.6      | 4.0 Maximum      |

WE CERTIFY THAT THE TEST RESULTS CONTAINED HEREIN ARE  
ACCURATE AS REPORTED. THE RESULTS SHOULD BE REPLICATIVE  
ALLOWING FOR A MARGIN OF TEST PROCEDURE AND OPERATOR ERROR.  
WE ALSO CERTIFY THAT THE ABOVE PRODUCT DOES MEET OR EXCEED  
ALL SPECIFICATIONS SET FORTH IN API 13A SECTION 9, SEVENTEENTH EDITION  
FOR BENTONITE.

**WYO-BEN, INC.**

*Sue Anderson*

---

Sue Anderson  
Quality Assurance

STUCCO PLANT  
WYOMING OPERATIONS OFFICE  
P.O. BOX 1072  
GREYBULL, WYOMING 82426 USA

SAGE CREEK PLANT  
Lovell, Wyoming

LUCERNE PLANT  
Thermopolis, Wyoming

CORPORATE HEADQUARTERS  
Billings, Montana



# WYO-BEN, INC.

## CERTIFICATE OF ANALYSIS

DATE: 08/06/12

TO: MORETRENCH AMERICAN CORP. SHIP DATE: 08/02/12

PRODUCT: HYDROGEL LOT NO.: 07311232

ORDER NO.: 74836 P.O.: 614827

TRUCK NO.: PRIME-620156 EMAIL: [dguy@mtac.com](mailto:dguy@mtac.com)

THE FOLLOWING RESULTS WERE OBTAINED FROM TESTS RUN ON A  
COMPOSITE SAMPLE TAKEN FROM THE ABOVE LOT.

| Lot Number       | 07311232 | Specification    |
|------------------|----------|------------------|
| 600rpm Reading   | 46       | 30 Minimum       |
| 300rpm Reading   | 35       | No Specification |
| YP/PV RATIO      | 2.18     | 3.00 Maximum     |
| MOISTURE %       | 6.7      | No Specification |
| WATER LOSS       | 13.0     | 15.0 Maximum     |
| pH               | 9.9      | No Specification |
| WET SCREEN %-200 | 3.6      | 4.0 Maximum      |

WE CERTIFY THAT THE TEST RESULTS CONTAINED HEREIN ARE  
ACCURATE AS REPORTED. THE RESULTS SHOULD BE REPLICATIVE  
ALLOWING FOR A MARGIN OF TEST PROCEDURE AND OPERATOR ERROR.  
WE ALSO CERTIFY THAT THE ABOVE PRODUCT DOES MEET OR EXCEED  
ALL SPECIFICATIONS SET FORTH IN API 13A SECTION 9, SEVENTEENTH EDITION  
FOR BENTONITE.

**WYO-BEN, INC.**

*Sue Anderson*

---

Sue Anderson  
Quality Assurance

STUCCO PLANT  
WYOMING OPERATIONS OFFICE  
P.O. BOX 1072  
GREYBULL, WYOMING 82426 USA

SAGE CREEK PLANT  
Lovell, Wyoming

LUCERNE PLANT  
Thermopolis, Wyoming

CORPORATE HEADQUARTERS  
Billings, Montana

# **WYO-BEN, INC.**

## **CERTIFICATE OF ANALYSIS**

|                   |                                  |                                                                |
|-------------------|----------------------------------|----------------------------------------------------------------|
|                   | <b>DATE:</b>                     | <b>08/06/12</b>                                                |
| <b>TO:</b>        | <b>MORETRENCH AMERICAN CORP.</b> | <b>SHIP DATE: 07/26/12</b>                                     |
| <b>PRODUCT:</b>   | <b>HYDROGEL</b>                  | <b>LOT NO.: 06191221</b>                                       |
| <b>ORDER NO.:</b> | <b>74830</b>                     | <b>P.O.: 614827</b>                                            |
| <b>TRUCK NO.:</b> | <b>AMERI-CO-1016</b>             | <b>EMAIL: <a href="mailto:dguy@mtac.com">dguy@mtac.com</a></b> |

THE FOLLOWING RESULTS WERE OBTAINED FROM TESTS RUN ON A  
COMPOSITE SAMPLE TAKEN FROM THE ABOVE LOT.

| <b>Lot Number</b> | <b>06191221</b> | <b>Specification</b> |
|-------------------|-----------------|----------------------|
| 600rpm Reading    | 43              | 30 Minimum           |
| 300rpm Reading    | 31              | No Specification     |
| YP/PV RATIO       | 1.58            | 3.00 Maximum         |
| MOISTURE %        | 10.0            | No Specification     |
| WATER LOSS        | 12.2            | 15.0 Maximum         |
| pH                | 9.5             | No Specification     |
| WET SCREEN %-200  | 3.4             | 4.0 Maximum          |

WE CERTIFY THAT THE TEST RESULTS CONTAINED HEREIN ARE  
ACCURATE AS REPORTED. THE RESULTS SHOULD BE REPLICATIVE  
ALLOWING FOR A MARGIN OF TEST PROCEDURE AND OPERATOR ERROR.  
WE ALSO CERTIFY THAT THE ABOVE PRODUCT DOES MEET OR EXCEED  
ALL SPECIFICATIONS SET FORTH IN API 13A SECTION 9, SEVENTEENTH EDITION  
FOR BENTONITE.

**WYO-BEN, INC.**

*Sue Anderson*

---

Sue Anderson  
Quality Assurance

STUCCO PLANT  
WYOMING OPERATIONS OFFICE  
P.O. BOX 1072  
GREYBULL, WYOMING 82426 USA

SAGE CREEK PLANT  
Lovell, Wyoming

LUCERNE PLANT  
Thermopolis, Wyoming

CORPORATE HEADQUARTERS  
Billings, Montana

# **WYO-BEN, INC.**

## **CERTIFICATE OF ANALYSIS**

**DATE:** 08/06/12

**TO:** MORETRENCH AMERICAN CORP.

**SHIP DATE:** 07/31/12

**PRODUCT:** HYDROGEL

**LOT NO.:** 07301222

**ORDER NO.:** 74831

**P.O.:** 614827

**TRUCK NO.:** QUALITY-66

**EMAIL:** [dguy@mtac.com](mailto:dguy@mtac.com)

THE FOLLOWING RESULTS WERE OBTAINED FROM TESTS RUN ON A  
COMPOSITE SAMPLE TAKEN FROM THE ABOVE LOT.

| <b>Lot Number</b> | <b>07301222</b> | <b>Specification</b> |
|-------------------|-----------------|----------------------|
| 600rpm Reading    | 41              | 30 Minimum           |
| 300rpm Reading    | 29              | No Specification     |
| YP/PV RATIO       | 1.42            | 3.00 Maximum         |
| MOISTURE %        | 9.2             | No Specification     |
| WATER LOSS        | 12.4            | 15.0 Maximum         |
| pH                | 9.4             | No Specification     |
| WET SCREEN %-200  | 3.5             | 4.0 Maximum          |

WE CERTIFY THAT THE TEST RESULTS CONTAINED HEREIN ARE  
ACCURATE AS REPORTED. THE RESULTS SHOULD BE REPLICATIVE  
ALLOWING FOR A MARGIN OF TEST PROCEDURE AND OPERATOR ERROR.  
WE ALSO CERTIFY THAT THE ABOVE PRODUCT DOES MEET OR EXCEED  
ALL SPECIFICATIONS SET FORTH IN API 13A SECTION 9, SEVENTEENTH EDITION  
FOR BENTONITE.

**WYO-BEN, INC.**

*Sue Anderson*

---

Sue Anderson  
Quality Assurance

STUCCO PLANT  
WYOMING OPERATIONS OFFICE  
P.O. BOX 1072  
GREYBULL, WYOMING 82426 USA

SAGE CREEK PLANT  
Lovell, Wyoming

LUCERNE PLANT  
Thermopolis, Wyoming

CORPORATE HEADQUARTERS  
Billings, Montana

# **WYO-BEN, INC.**

## **CERTIFICATE OF ANALYSIS**

**DATE:** 08/06/12

**TO:** MORETRENCH AMERICAN CORP. **SHIP DATE:** 07/31/12

**PRODUCT:** HYDROGEL **LOT NO.:** 07301222

**ORDER NO.:** 74948 **P.O.:** 614827

**TRUCK NO.:** HIGHBALL-36 **EMAIL:** [dguy@mtac.com](mailto:dguy@mtac.com)

THE FOLLOWING RESULTS WERE OBTAINED FROM TESTS RUN ON A  
COMPOSITE SAMPLE TAKEN FROM THE ABOVE LOT.

| <b>Lot Number</b> | <b>07301222</b> | <b>Specification</b> |
|-------------------|-----------------|----------------------|
| 600rpm Reading    | 41              | 30 Minimum           |
| 300rpm Reading    | 29              | No Specification     |
| YP/PV RATIO       | 1.42            | 3.00 Maximum         |
| MOISTURE %        | 9.2             | No Specification     |
| WATER LOSS        | 12.4            | 15.0 Maximum         |
| pH                | 9.4             | No Specification     |
| WET SCREEN %-200  | 3.5             | 4.0 Maximum          |

WE CERTIFY THAT THE TEST RESULTS CONTAINED HEREIN ARE  
ACCURATE AS REPORTED. THE RESULTS SHOULD BE REPLICATIVE  
ALLOWING FOR A MARGIN OF TEST PROCEDURE AND OPERATOR ERROR.  
WE ALSO CERTIFY THAT THE ABOVE PRODUCT DOES MEET OR EXCEED  
ALL SPECIFICATIONS SET FORTH IN API 13A SECTION 9, SEVENTEENTH EDITION  
FOR BENTONITE.

**WYO-BEN, INC.**

*Sue Anderson*

---

Sue Anderson  
Quality Assurance

STUCCO PLANT  
WYOMING OPERATIONS OFFICE  
P.O. BOX 1072  
GREYBULL, WYOMING 82426 USA

SAGE CREEK PLANT  
Lovell, Wyoming

LUCERNE PLANT  
Thermopolis, Wyoming

CORPORATE HEADQUARTERS  
Billings, Montana

# WYO-BEN, INC.

## CERTIFICATE OF ANALYSIS

DATE: 08/06/12

TO: MORETRENCH AMERICAN CORP. SHIP DATE: 08/02/12

PRODUCT: HYDROGEL LOT NO.: 07301222

ORDER NO.: 74949 P.O.: 614827

TRUCK NO.: STEELMAN-A15 EMAIL: [dguy@mtac.com](mailto:dguy@mtac.com)

THE FOLLOWING RESULTS WERE OBTAINED FROM TESTS RUN ON A  
COMPOSITE SAMPLE TAKEN FROM THE ABOVE LOT.

| Lot Number       | 07301222 | Specification    |
|------------------|----------|------------------|
| 600rpm Reading   | 41       | 30 Minimum       |
| 300rpm Reading   | 29       | No Specification |
| YP/PV RATIO      | 1.42     | 3.00 Maximum     |
| MOISTURE %       | 9.2      | No Specification |
| WATER LOSS       | 12.4     | 15.0 Maximum     |
| pH               | 9.4      | No Specification |
| WET SCREEN %-200 | 3.5      | 4.0 Maximum      |

WE CERTIFY THAT THE TEST RESULTS CONTAINED HEREIN ARE  
ACCURATE AS REPORTED. THE RESULTS SHOULD BE REPLICATIVE  
ALLOWING FOR A MARGIN OF TEST PROCEDURE AND OPERATOR ERROR.  
WE ALSO CERTIFY THAT THE ABOVE PRODUCT DOES MEET OR EXCEED  
ALL SPECIFICATIONS SET FORTH IN API 13A SECTION 9, SEVENTEENTH EDITION  
FOR BENTONITE.

**WYO-BEN, INC.**

*Sue Anderson*

---

Sue Anderson  
Quality Assurance

STUCCO PLANT  
WYOMING OPERATIONS OFFICE  
P.O. BOX 1072  
GREYBULL, WYOMING 82426 USA

SAGE CREEK PLANT  
Lovell, Wyoming

LUCERNE PLANT  
Thermopolis, Wyoming

CORPORATE HEADQUARTERS  
Billings, Montana



| <b>TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR<br/>MANUFACTURER'S CERTIFICATES OF COMPLIANCE</b><br><small>(Read instructions on reverse side prior to initiating this form)</small> |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         | <b>DATE</b><br>September 13, 2012            |                                      | <b>TRANSMITTAL NO:</b><br><b>003</b>                                                                                                                      |                                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| <b>SECTION I - REQUEST FOR APPROVAL OF THE FOLLOWING ITEMS</b> (This section will be initiated by the Contractor)                                                                                           |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                           |                                |
| <b>TO:</b><br>Zachary Mothershed - Project Engineer<br>US Army Corps of Engineers<br>696 Virginia Road<br>Concord, MA 01742-2751                                                                            |                                                                                 |                                                                                                  | <b>FROM:</b><br>Sovereign Consulting, Inc.<br>16 Chestnut Street, Suite 520<br>Foxboro, MA 02035                                                  |                                                                                                                                                                                                                                                                                                                         | <b>CONTRACT NO:</b><br>W912WJ-10-D-0003-0002 |                                      | <b>CHECK ONE:</b><br><input checked="" type="checkbox"/> THIS IS A NEW TRANSMITTAL<br><input type="checkbox"/> THIS IS A RESUBMITTAL OF TRANSMITTAL _____ |                                |
| SPECIFICATION SECTION NO: (Cover only one section with each transmittal)<br><div style="text-align: center; font-weight: bold; font-size: 1.2em;">02215</div>                                               |                                                                                 |                                                                                                  | PROJECT TITLE AND LOCATION:<br><div style="text-align: center;"> <b>Shepley's Hill Landfill<br/>Barrier Wall<br/>Devens, Massachusetts</b> </div> |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                           |                                |
| ITEM<br>NO.<br><br>a.                                                                                                                                                                                       | DESCRIPTION OF ITEM SUBMITTED<br><br>b.<br><br>(Type, size, model number, etc.) | MFG. OR CONTR. CAT.<br>CURVE DRAWING OR<br>BROCHURE NO.<br><br>c.<br><br>(See instruction No. 8) | NO. OF<br>COPIES<br><br>d.                                                                                                                        | CONTRACT REFERENCE                                                                                                                                                                                                                                                                                                      |                                              | FOR CONTRACTOR<br>USE CODE<br><br>g. | VARIATION<br><br>(See instruction<br>No. 6)<br><br>h.                                                                                                     | FORCE<br>USE<br>CODE<br><br>i. |
|                                                                                                                                                                                                             |                                                                                 |                                                                                                  |                                                                                                                                                   | DOCUMENT                                                                                                                                                                                                                                                                                                                |                                              |                                      |                                                                                                                                                           |                                |
|                                                                                                                                                                                                             |                                                                                 |                                                                                                  |                                                                                                                                                   | SPEC. PARA.<br>NO.<br><br>e.                                                                                                                                                                                                                                                                                            | DRAWING<br>SHEET NO.<br><br>f.               |                                      |                                                                                                                                                           |                                |
| 1                                                                                                                                                                                                           | Bentonite - Certification - 8/29/12 Delivery Date                               | N/A                                                                                              | 1                                                                                                                                                 | 1.7                                                                                                                                                                                                                                                                                                                     | ~                                            | FIO                                  | ~                                                                                                                                                         |                                |
|                                                                                                                                                                                                             |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                           |                                |
|                                                                                                                                                                                                             |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                           |                                |
|                                                                                                                                                                                                             |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                           |                                |
|                                                                                                                                                                                                             |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                           |                                |
|                                                                                                                                                                                                             |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                           |                                |
|                                                                                                                                                                                                             |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                           |                                |
|                                                                                                                                                                                                             |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                           |                                |
|                                                                                                                                                                                                             |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                           |                                |
|                                                                                                                                                                                                             |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                           |                                |
|                                                                                                                                                                                                             |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                           |                                |
|                                                                                                                                                                                                             |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                           |                                |
|                                                                                                                                                                                                             |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                           |                                |
|                                                                                                                                                                                                             |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                           |                                |
| REMARKS                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   | I certify that the above submitted items have been reviewed<br>in detail and correct and in strict conformance with the<br>contract drawings and specifications except as otherwise stated.<br><br><div style="text-align: right;"> <u>Thomas B. Hevner</u> <br/>         NAME AND SIGNATURE OF CONTRACTOR       </div> |                                              |                                      |                                                                                                                                                           |                                |
| <b>SECTION II - APPROVAL ACTION</b>                                                                                                                                                                         |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                           |                                |
| ENCLOSURES RETURNED (List by Item No.)                                                                                                                                                                      |                                                                                 |                                                                                                  | NAME, TITLE AND SIGNATURE OF APPROVING AUTHORITY                                                                                                  |                                                                                                                                                                                                                                                                                                                         |                                              |                                      | DATE                                                                                                                                                      |                                |

# **WYO-BEN, INC.**

## **CERTIFICATE OF ANALYSIS**

DATE: 08/29/12

TO: MORETRENCH AMERICAN CORP. SHIP DATE: 08/28/12

PRODUCT: HYDROGEL LOT NO.: 08231232

ORDER NO.: 76403 P.O.: 614827

TRUCK NO.: CRST MALONE-W2730M EMAIL: [dguy@mtac.com](mailto:dguy@mtac.com)

THE FOLLOWING RESULTS WERE OBTAINED FROM TESTS RUN ON A  
COMPOSITE SAMPLE TAKEN FROM THE ABOVE LOT.

| Lot Number       | 08231232 | Specification    |
|------------------|----------|------------------|
| 600rpm Reading   | 38       | 30 Minimum       |
| 300rpm Reading   | 28       | No Specification |
| YP/PV RATIO      | 1.80     | 3.00 Maximum     |
| MOISTURE %       | 8.1      | No Specification |
| WATER LOSS       | 13.4     | 15.0 Maximum     |
| pH               | 9.9      | No Specification |
| WET SCREEN %-200 | 3.4      | 4.0 Maximum      |

WE CERTIFY THAT THE TEST RESULTS CONTAINED HEREIN ARE  
ACCURATE AS REPORTED. THE RESULTS SHOULD BE REPLICATIVE  
ALLOWING FOR A MARGIN OF TEST PROCEDURE AND OPERATOR ERROR.  
WE ALSO CERTIFY THAT THE ABOVE PRODUCT DOES MEET OR EXCEED  
ALL SPECIFICATIONS SET FORTH IN API 13A SECTION 9, SEVENTEENTH EDITION  
FOR BENTONITE.

**WYO-BEN, INC.**

*Sue Anderson*

---

Sue Anderson  
Quality Assurance

STUCCO PLANT  
WYOMING OPERATIONS OFFICE  
P.O. BOX 1072  
GREYBULL, WYOMING 82426 USA

SAGE CREEK PLANT  
Lovell, Wyoming

LUCERNE PLANT  
Thermopolis, Wyoming

CORPORATE HEADQUARTERS  
Billings, Montana

# WYO-BEN, INC.

## CERTIFICATE OF ANALYSIS

DATE: 08/29/12

TO: MORETRENCH AMERICAN CORP.

SHIP DATE: 08/28/12

PRODUCT: HYDROGEL

LOT NO.: 07301222

ORDER NO.: 75319

P.O.: 614827

TRUCK NO.: CRST-W2537M

EMAIL: [dguy@mtac.com](mailto:dguy@mtac.com)

THE FOLLOWING RESULTS WERE OBTAINED FROM TESTS RUN ON A  
COMPOSITE SAMPLE TAKEN FROM THE ABOVE LOT.

| Lot Number       | 07301222 | Specification    |
|------------------|----------|------------------|
| 600rpm Reading   | 41       | 30 Minimum       |
| 300rpm Reading   | 29       | No Specification |
| YP/PV RATIO      | 1.42     | 3.00 Maximum     |
| MOISTURE %       | 9.2      | No Specification |
| WATER LOSS       | 12.4     | 15.0 Maximum     |
| pH               | 9.4      | No Specification |
| WET SCREEN %-200 | 3.5      | 4.0 Maximum      |

WE CERTIFY THAT THE TEST RESULTS CONTAINED HEREIN ARE  
ACCURATE AS REPORTED. THE RESULTS SHOULD BE REPLICATIVE  
ALLOWING FOR A MARGIN OF TEST PROCEDURE AND OPERATOR ERROR.  
WE ALSO CERTIFY THAT THE ABOVE PRODUCT DOES MEET OR EXCEED  
ALL SPECIFICATIONS SET FORTH IN API 13A SECTION 9, SEVENTEENTH EDITION  
FOR BENTONITE.

**WYO-BEN, INC.**

*Sue Anderson*

---

Sue Anderson  
Quality Assurance

STUCCO PLANT  
WYOMING OPERATIONS OFFICE  
P.O. BOX 1072  
GREYBULL, WYOMING 82426 USA

SAGE CREEK PLANT  
Lovell, Wyoming

LUCERNE PLANT  
Thermopolis, Wyoming

CORPORATE HEADQUARTERS  
Billings, Montana

| <b>TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR<br/>MANUFACTURER'S CERTIFICATES OF COMPLIANCE</b><br><i>(Read instructions on reverse side prior to initiating this form)</i> |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         | <b>DATE</b><br>September 13, 2012            |                                      | <b>TRANSMITTAL NO:</b><br><b>004</b>                                                                                                                                |                                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| <b>SECTION I - REQUEST FOR APPROVAL OF THE FOLLOWING ITEMS</b> (This section will be initiated by the Contractor)                                                                                   |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
| <b>TO:</b><br>Zachary Mothershed - Project Engineer<br>US Army Corps of Engineers<br>696 Virginia Road<br>Concord, MA 01742-2751                                                                    |                                                                                 |                                                                                              | <b>FROM:</b><br>Sovereign Consulting, Inc.<br>16 Chestnut Street, Suite 520<br>Foxboro, MA 02035                                                  |                                                                                                                                                                                                                                                                                                                         | <b>CONTRACT NO:</b><br>W912WJ-10-D-0003-0002 |                                      | <b>CHECK ONE:</b><br><input checked="checked" type="checkbox"/> THIS IS A NEW TRANSMITTAL<br><input type="checkbox"/> THIS IS A RESUBMITTAL OF<br>TRANSMITTAL _____ |                                |
| SPECIFICATION SECTION NO: (Cover only one section with each transmittal)<br><div style="text-align: center; font-weight: bold; font-size: 1.2em;">02300</div>                                       |                                                                                 |                                                                                              | PROJECT TITLE AND LOCATION:<br><div style="text-align: center;"> <b>Shepley's Hill Landfill<br/>Barrier Wall<br/>Devens, Massachusetts</b> </div> |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
| ITEM<br>NO.<br><br>a.                                                                                                                                                                               | DESCRIPTION OF ITEM SUBMITTED<br><br>(Type, size, model number, etc.)<br><br>b. | MFG. OR CONTR. CAT.<br>CURVE DRAWING OR<br>BROCHURE NO.<br>(See instruction No. 8)<br><br>c. | NO. OF<br>COPIES<br><br>d.                                                                                                                        | CONTRACT REFERENCE<br>DOCUMENT                                                                                                                                                                                                                                                                                          |                                              | FOR CONTRACTOR<br>USE CODE<br><br>g. | VARIATION<br>(See instruction<br>No. 6)<br><br>h.                                                                                                                   | FORCE<br>USE<br>CODE<br><br>i. |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   | SPEC. PARA.<br>NO.<br><br>e.                                                                                                                                                                                                                                                                                            | DRAWING<br>SHEET NO.<br><br>f.               |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   | 1.4                                                                                                                                                                                                                                                                                                                     | 8                                            |                                      |                                                                                                                                                                     |                                |
| 1                                                                                                                                                                                                   | Drainage Layer - Sand                                                           | N/A                                                                                          | 1                                                                                                                                                 | 1.4                                                                                                                                                                                                                                                                                                                     | 8                                            | FIO                                  | ~                                                                                                                                                                   |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
| REMARKS                                                                                                                                                                                             |                                                                                 |                                                                                              |                                                                                                                                                   | I certify that the above submitted items have been reviewed<br>in detail and correct and in strict conformance with the<br>contract drawings and specifications except as otherwise stated.<br><br><div style="text-align: right;"> <u>Thomas B. Hevner</u> <br/>         NAME AND SIGNATURE OF CONTRACTOR       </div> |                                              |                                      |                                                                                                                                                                     |                                |
| <b>SECTION II - APPROVAL ACTION</b>                                                                                                                                                                 |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
| ENCLOSURES RETURNED (List by Item No.)                                                                                                                                                              |                                                                                 |                                                                                              | NAME, TITLE AND SIGNATURE OF APPROVING AUTHORITY                                                                                                  |                                                                                                                                                                                                                                                                                                                         |                                              |                                      | DATE                                                                                                                                                                |                                |



**CONSTRUCTION CO. INC.**

192 Depot Road, P.O. Box 401

East Templeton, MA 01438

- Lancaster Pit

## Screened Sand

| <u>Sieve Size</u> | <u>% Passing</u> |
|-------------------|------------------|
| 3/8"              | 100              |
| 1/4"              | 97.7             |
| #4                | 93.41            |
| #8                | 84.19            |
| #16               | 70.76            |
| #30               | 46.08            |
| #50               | 19.91            |
| #100              | 6.60             |
| #200              | 2.39             |
| #100              | 0                |



| <b>TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR<br/>MANUFACTURER'S CERTIFICATES OF COMPLIANCE</b><br><i>(Read instructions on reverse side prior to initiating this form)</i> |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         | <b>DATE</b><br>September 14, 2012            |                                      | <b>TRANSMITTAL NO:</b><br><b>005</b>                                                                                                                                |                                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| <b>SECTION I - REQUEST FOR APPROVAL OF THE FOLLOWING ITEMS</b> (This section will be initiated by the Contractor)                                                                                   |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
| <b>TO:</b><br>Zachary Mothershed - Project Engineer<br>US Army Corps of Engineers<br>696 Virginia Road<br>Concord, MA 01742-2751                                                                    |                                                                                 |                                                                                              | <b>FROM:</b><br>Sovereign Consulting, Inc.<br>16 Chestnut Street, Suite 520<br>Foxboro, MA 02035                                                  |                                                                                                                                                                                                                                                                                                                         | <b>CONTRACT NO:</b><br>W912WJ-10-D-0003-0002 |                                      | <b>CHECK ONE:</b><br><input checked="checked" type="checkbox"/> THIS IS A NEW TRANSMITTAL<br><input type="checkbox"/> THIS IS A RESUBMITTAL OF<br>TRANSMITTAL _____ |                                |
| SPECIFICATION SECTION NO: (Cover only one section with each transmittal)<br><div style="text-align: center; font-weight: bold; font-size: 1.2em;">02300</div>                                       |                                                                                 |                                                                                              | PROJECT TITLE AND LOCATION:<br><div style="text-align: center;"> <b>Shepley's Hill Landfill<br/>Barrier Wall<br/>Devens, Massachusetts</b> </div> |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
| ITEM<br>NO.<br><br>a.                                                                                                                                                                               | DESCRIPTION OF ITEM SUBMITTED<br><br>(Type, size, model number, etc.)<br><br>b. | MFG. OR CONTR. CAT.<br>CURVE DRAWING OR<br>BROCHURE NO.<br>(See instruction No. 8)<br><br>c. | NO. OF<br>COPIES<br><br>d.                                                                                                                        | CONTRACT REFERENCE                                                                                                                                                                                                                                                                                                      |                                              | FOR CONTRACTOR<br>USE CODE<br><br>g. | VARIATION<br>(See instruction<br>No. 6)<br><br>h.                                                                                                                   | FORCE<br>USE<br>CODE<br><br>i. |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   | DOCUMENT                                                                                                                                                                                                                                                                                                                |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   | SPEC. PARA.<br>NO.<br><br>e.                                                                                                                                                                                                                                                                                            | DRAWING<br>SHEET NO.<br><br>f.               |                                      |                                                                                                                                                                     |                                |
| 1                                                                                                                                                                                                   | Woven Geotextile                                                                | N/A                                                                                          | 1                                                                                                                                                 | 1.4                                                                                                                                                                                                                                                                                                                     | C-302, F, G                                  | FIO                                  | ~                                                                                                                                                                   |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
| REMARKS                                                                                                                                                                                             |                                                                                 |                                                                                              |                                                                                                                                                   | I certify that the above submitted items have been reviewed<br>in detail and correct and in strict conformance with the<br>contract drawings and specifications except as otherwise stated.<br><br><div style="text-align: right;"> <u>Thomas B. Hevner</u> <br/>         NAME AND SIGNATURE OF CONTRACTOR       </div> |                                              |                                      |                                                                                                                                                                     |                                |
| <b>SECTION II - APPROVAL ACTION</b>                                                                                                                                                                 |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
| ENCLOSURES RETURNED (List by Item No.)                                                                                                                                                              |                                                                                 |                                                                                              | NAME, TITLE AND SIGNATURE OF APPROVING AUTHORITY                                                                                                  |                                                                                                                                                                                                                                                                                                                         |                                              |                                      | DATE                                                                                                                                                                |                                |

## Mirafi® 600X

Mirafi® 600X geotextile is composed of high-tenacity polypropylene yarns, which are woven into a stable network such that the yarns retain their relative position. Mirafi® 600X geotextile is inert to biological degradation and resistant to naturally encountered chemicals, alkalis, and acids.

| Mechanical Properties                    | Test Method | Unit                                               | Minimum Average Roll Value |            |
|------------------------------------------|-------------|----------------------------------------------------|----------------------------|------------|
|                                          |             |                                                    | MD                         | CD         |
| Grab Tensile Strength                    | ASTM D4632  | lbs (N)                                            | 315 (1402)                 | 315 (1402) |
| Grab Tensile Elongation                  | ASTM D4632  | %                                                  | 12                         |            |
| Trapezoid Tear Strength                  | ASTM D4533  | lbs (N)                                            | 113 (503)                  | 113 (503)  |
| CBR Puncture Strength                    | ASTM D6241  | lbs (N)                                            | 900 (4005)                 |            |
| Apparent Opening Size (AOS) <sup>1</sup> | ASTM D4751  | U.S. Sieve (mm)                                    | 40 (0.43)                  |            |
| Permittivity                             | ASTM D4491  | sec <sup>-1</sup>                                  | 0.05                       |            |
| Flow Rate                                | ASTM D4491  | gal/min/ft <sup>2</sup><br>(l/min/m <sup>2</sup> ) | 4.0<br>(163)               |            |
| UV Resistance (at 500 hours)             | ASTM D4355  | % strength retained                                | 70                         |            |

<sup>1</sup> ASTM D4751, AOS is a Maximum Opening Diameter Value

| Physical Properties                 | Test Method | Unit                                   | Typical Value         |                    |                        |
|-------------------------------------|-------------|----------------------------------------|-----------------------|--------------------|------------------------|
| Weight                              | ASTM D5261  | oz/yd <sup>2</sup> (g/m <sup>2</sup> ) | 6.0 (203)             |                    |                        |
| Thickness                           | ASTM D5199  | mils (mm)                              | 25 (0.6)              |                    |                        |
| Roll Dimensions<br>(width x length) | --          | ft<br>(m)                              | 12.5x360<br>(3.8x110) | 15x300<br>(4.6x91) | 17.5x258<br>(5.3x78.7) |
| Roll Area                           | --          | yd <sup>2</sup> (m <sup>2</sup> )      | 500 (418)             |                    |                        |
| Estimated Roll Weight               | --          | lb (kg)                                | 240 (109)             |                    |                        |

**Disclaimer:** TenCate assumes no liability for the accuracy or completeness of this information or for the ultimate use by the purchaser. TenCate disclaims any and all express, implied, or statutory standards, warranties or guarantees, including without limitation any implied warranty as to merchantability or fitness for a particular purpose or arising from a course of dealing or usage of trade as to any equipment, materials, or information furnished herewith. This document should not be construed as engineering advice.

© 2012 TenCate Geosynthetics Americas  
Mirafi® is a registered trademark of Nicolon Corporation

| <b>TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR<br/>MANUFACTURER'S CERTIFICATES OF COMPLIANCE</b><br><i>(Read instructions on reverse side prior to initiating this form)</i> |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         | <b>DATE</b><br>September 26, 2012            |                                      | <b>TRANSMITTAL NO:</b><br><b>006</b>                                                                                                                             |                                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| <b>SECTION I - REQUEST FOR APPROVAL OF THE FOLLOWING ITEMS</b> (This section will be initiated by the Contractor)                                                                                   |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                  |                                |
| <b>TO:</b><br>Zachary Mothershed - Project Engineer<br>US Army Corps of Engineers<br>696 Virginia Road<br>Concord, MA 01742-2751                                                                    |                                                                                 |                                                                                                  | <b>FROM:</b><br>Sovereign Consulting, Inc.<br>16 Chestnut Street, Suite 520<br>Foxboro, MA 02035                                                  |                                                                                                                                                                                                                                                                                                                         | <b>CONTRACT NO:</b><br>W912WJ-10-D-0003-0002 |                                      | <b>CHECK ONE:</b><br><input checked="checked" type="checkbox"/> THIS IS A NEW TRANSMITTAL<br><input type="checkbox"/> THIS IS A RESUBMITTAL OF TRANSMITTAL _____ |                                |
| SPECIFICATION SECTION NO: (Cover only one section with each transmittal)<br><div style="text-align: center; font-weight: bold; font-size: 1.2em;">02300, 02736</div>                                |                                                                                 |                                                                                                  | PROJECT TITLE AND LOCATION:<br><div style="text-align: center;"> <b>Shepley's Hill Landfill<br/>Barrier Wall<br/>Devens, Massachusetts</b> </div> |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                  |                                |
| ITEM<br>NO.<br><br>a.                                                                                                                                                                               | DESCRIPTION OF ITEM SUBMITTED<br><br>(Type, size, model number, etc.)<br><br>b. | MFG. OR CONTR. CAT.<br>CURVE DRAWING OR<br>BROCHURE NO.<br><br>(See instruction No. 8)<br><br>c. | NO. OF<br>COPIES<br><br>d.                                                                                                                        | CONTRACT REFERENCE<br>DOCUMENT                                                                                                                                                                                                                                                                                          |                                              | FOR CONTRACTOR<br>USE CODE<br><br>g. | VARIATION<br><br>(See instruction<br>No. 6)<br><br>h.                                                                                                            | FORCE<br>USE<br>CODE<br><br>i. |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   | SPEC. PARA.<br>NO.<br><br>e.                                                                                                                                                                                                                                                                                            | DRAWING<br>SHEET NO.<br><br>f.               |                                      |                                                                                                                                                                  |                                |
| 1                                                                                                                                                                                                   | PVC Geomembrane                                                                 | N/A                                                                                              | 1                                                                                                                                                 | 1.4, 1.5                                                                                                                                                                                                                                                                                                                | C-302, E, F                                  | FIO                                  | ~                                                                                                                                                                |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                  |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                  |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                  |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                  |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                  |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                  |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                  |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                  |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                  |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                  |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                  |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                  |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                  |                                |
| REMARKS                                                                                                                                                                                             |                                                                                 |                                                                                                  |                                                                                                                                                   | I certify that the above submitted items have been reviewed<br>in detail and correct and in strict conformance with the<br>contract drawings and specifications except as otherwise stated.<br><br><div style="text-align: right;"> <u>Thomas B. Hevner</u> <br/>         NAME AND SIGNATURE OF CONTRACTOR       </div> |                                              |                                      |                                                                                                                                                                  |                                |
| <b>SECTION II - APPROVAL ACTION</b>                                                                                                                                                                 |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                  |                                |
| ENCLOSURES RETURNED (List by Item No.)                                                                                                                                                              |                                                                                 |                                                                                                  | NAME, TITLE AND SIGNATURE OF APPROVING AUTHORITY                                                                                                  |                                                                                                                                                                                                                                                                                                                         |                                              |                                      | DATE                                                                                                                                                             |                                |



---

**POLYVINYL CHLORIDE (PVC) GEOMEMBRANE FABRICATION  
AND  
QUALITY CONTROL PROCEDURES**

---

**SOLMAX INTERNATIONAL INC.**  
AUGUST 08

2801, Marie-Victorin boulevard, Varennes, Québec, Canada J3X 1P7

[WWW.SOLMAX.COM](http://WWW.SOLMAX.COM)

**Telephone** 4 5 0 9 2 9 1 2 3 4

**Sales** 4 5 0 9 2 9 2 5 4 4

**Fax** 4 5 0 9 2 9 1 2 2 7

ISO 9001 | ISO 14001

## TABLE OF CONTENTS

|                                                         |    |
|---------------------------------------------------------|----|
| 1. INTRODUCTION .....                                   | 2  |
| 2. MANUFACTURING CAPABILITIES.....                      | 2  |
| 3. BRIEF CORPORATE HISTORY .....                        | 3  |
| 4. PARTIAL LIST OF PVC PROJECTS REALIZED RECENTLY ..... | 3  |
| 5. QUALITY CONTROL (QC) PROCEDURES OF ROLL GOODS .....  | 6  |
| 6. PVC FACTORY FABRICATION .....                        | 6  |
| 7. DIELECTRIC WELDER QUALITY CONTROL PROCEDURES .....   | 6  |
| 7.1 CALIBRATION .....                                   | 6  |
| 7.2 DESTRUCTIVE TESTING (ONLY UPON REQUEST) .....       | 7  |
| 7.3 VISUAL INSPECTION AND REPAIR PROCEDURES .....       | 8  |
| 7.4 DOCUMENTATION .....                                 | 9  |
| 7.5 SPECIMEN SAMPLES .....                              | 9  |
| 8. PANEL AND ROLL IDENTIFICATION .....                  | 9  |
| 9. PACKAGING .....                                      | 10 |

### APPENDIX

- CORPORATE CERTIFICATIONS & MEMBERSHIPS
- PVC GEOMEMBRANE INSTITUTE (PGI) FABRICATION & INSTALLATION MANUAL



## 1. INTRODUCTION

The purpose of this document is to provide an overview of all Quality Control (QC) procedures conducted by Solmax International Inc. during the factory fabrication of Polyvinyl Chloride (PVC) geomembrane panels.

The following general guidelines are given for information purposes only. Project specifics can modify this Quality Control Program, which acts as a basis for projects without plans and specifications.

## 2. MANUFACTURING CAPABILITIES

The **Solmax International** plant is located in Varennes, Canada and it employs approximately 75 employees. The plant houses a state-of-the-art three-layer and a monolayer film blown extruders producing all common types of polyethylene geomembrane in 22 feet (6.7 m) wide rolls with the thickness ranging from 20 to 100 mil (0.50 to 2.50mm). Solmax processes various types of resins including High Density Polyethylene (HDPE) and other polyethylene configurations such as Very Flexible Polyethylene (VFPE). All of these resins can be used to manufacture geomembranes with smooth surfaces or with texture on one or both sides in order to improve friction properties.

Solmax also manufactures among the biggest PVC geomembrane panels in the industry on thickness ranging from 0.5mm to 1.50mm and reaching up to 4500m<sup>2</sup> long.

### SIZE OF PLANT:

- APPROXIMATE AREA OF THE PLANT IS 48,000 SQUARE FEET
- OUTSIDE STORAGE IS APPROXIMATELY 150,000 SQUARE FEET

### EQUIPMENT:

- BLOWN FILM BATTENFELD GLOUCESTER ENG. MONOLAYER 86 INCHES (CAPACITY OF 3200 POUNDS PER HOUR)
- BLOWN FILM BATTENFELD GLOUCESTER ENG. COEXTRUSION 3 SCREWS 86 INCHES (CAPACITY OF 3500 POUNDS PER HOUR)
- SOLMAX HAS TWO POLYETHYLENE PRODUCTION LINES
- K-BAR DIELECTRIC WELDING UNITS OF 15 KWA
- SOLMAX HAS THREE PVC PRODUCTION LINES

### NUMBER OF SHIFTS PER DAY:

- 2 SHIFTS OF 12 HOURS AND THE PRODUCTION IS CONTINUOUS (24/24)
- PRODUCTION IS CONTINUOUS

### PRODUCTION PER SHIFT:

- 65, 000 POUNDS PER SHIFT
- 15,000 M2 (BASED ON 0.75 MM THICK) FOR PVC

### ANNUAL CAPACITY

- APPROXIMATELY 48 000 000 POUNDS ANNUALLY (PE)
- APPROXIMATELY 15,000,000 M2 ANNUALLY (PVC)



### 3. BRIEF CORPORATE HISTORY

#### PVC FABRICATION ACTIVITIES

|      |                                                                                                    |
|------|----------------------------------------------------------------------------------------------------|
| 1989 | Addition of Factory Pre-fabrication Services – ON FLOOR                                            |
| 1991 | Optimization of our process through the automation of our first assembly line (dielectric process) |
| 1993 | First major project with the Government of Quebec (300 000 sm)                                     |
| 1998 | Beginning of our partnership with the worldwide leader SQM S.A.                                    |
| 1999 | Installation of a second automated assembly line                                                   |
| 2002 | Integration to our assembly lines of the a wind up system<br>► innovative method of folding        |
| 2003 | Mushrif project – Realization of the biggest water reservoir worldwide                             |
| 2003 | Manto Verde (Chile) – 1st time utilization of PVC in a large scale Copper leaching                 |
| 2004 | Development of the Infra-red technology with the Canadian National Research Institute              |
| 2005 | Development of the Master Rolls concept                                                            |
| 2006 | Installation of a third automated production line                                                  |
| 2007 | Integration of a pin hole detector                                                                 |
| 2008 | Solmax historical contract signature with Chilean leader (7 Million sm)                            |

### 4. PARTIAL LIST OF PVC PROJECTS REALIZED RECENTLY



**Project Name:**

Application:

Location:

Date of completion:

Facility owner:

Installer:

Contact:

Material Thickness:

Surface Area

**SQM S.A.**

Evaporation pond

Desert de Atacama, Chile

2008 - March 2009

SQM S.A.

Teypa

Waldo Rojas

PVC 30 mil

7 000 000 sm / 75 385 000 sf

**Project Name:**

**Minera Escondida**

Application:

Tailing dam

Location:

Desert de Atacama, Chile

Date of completion:

April 2007

Facility owner:

Minera Escondida

Installer:

Minera Escondida

Material Thickness:

PVC 30 mil

Surface Area

3 250 000 sm / 34 500 000 sf

**Project Name:**

**Barnesville WWTP**

Application:

Water Waste Treatment

Location:

Barnesville, MN

Date of completion:

Oct-Nov 2006

Facility owner:

City of Barnesville

Installer:

Simbeck & Associates

Contact:

Brian Simbeck

Material Thickness:

PVC 30 mil

Surface Area

212 275 sm / 2 284 892 sf



**Project Name:**

**Jamalco**

Application:

Dry residue area

Location:

Clarendon, Jamaica

Date of completion:

December 2007

Facility owner:

Alcoa

Installer:

Soluciones Ambientales

Contact:

Marco Araujo

Material Thickness:

PVC 30 mil

Surface Area

1 300 000 sm / 14 000 000 sf

**Project Name:**

**Rosebud Mining**

Location:

Penfield, PA

Date of completion:

October 2006

Facility owner:

Rosebud Mining

Installer:

Frank Roberts & Sons

Contact:

Mike Roberts

Material Thickness:

PVC 30 mil

Surface Area

40 000 sm / 426 500 sf



**Project Name:**

Application:  
Location:  
Date of completion:  
Facility owner:  
Installer:  
Contact:  
Material Thickness:  
Surface Area

**SQM S.A.**

Evaporation pond  
Desert de Atacama, Chile  
March 2007  
SQM  
Teypa  
Waldo Rojas  
PVC 30 mil  
1 100 000 sm / 11 840 300 sf

**Project Name:**

Application:  
Location:  
Date of completion:  
Facility owner:  
Contact:  
Telephone:  
Installer:  
Contact:  
Material Thickness:  
Surface Area

**Eagle Bend Wastewater Treatment Project**

Waste Water Treatment Plant  
Eagle Bend, MN  
November 2006  
Town of Eagle Bend  
Kevin Hess  
(218) 738-5982  
Simbeck & Associates  
JoAnne Simbeck  
PVC 30 mil  
130 000 sm / 1 393 372 sf

**Project Name:**

Application:  
Location:  
Date of completion:  
Owner:  
Client:  
Contact:  
Material Thickness:  
Surface Area

**Home Depot**

Decorative pond  
USA  
Year 2006  
Home Depot  
Beckett  
Joanne Tran  
PVC 20 mil Fish Grade  
1 100 100 sm / 11 850 000 sf

## **5. QUALITY CONTROL (QC) PROCEDURES OF ROLL GOODS**

All delivered roll goods shall be visually inspected by the quality control technician for damage during shipment and handling and for proper labeling. The quality control manager shall verify that all roll goods meet or exceed the project specifications by reviewing the manufacturer's quality control test results, test methods and frequencies (see "Manufacturer's Certification Results" in Appendix A). Any roll deemed unacceptable shall be separated and identified by a nonconformity tag in order to have it removed from production until satisfactory remedial actions have been taken.

Each production order shall be fully documented by the lot and all roll numbers used for the specific panel. A record drawing for each panel shall also be prepared indicating the location and dimension of each roll, or parts thereof, used to fabricate the given panel.

## **6. PVC FACTORY FABRICATION**

Prior to any production, all work areas shall be cleaned and kept free of any obstacles liable to cause damage or injure personnel. The production manager - and, if necessary, the quality control manager - shall hold a pre-production meeting with the production personnel in order to establish and convey all project specific requirements such as minimum seam strength and packaging procedures.

## **7. DIELECTRIC WELDER QUALITY CONTROL PROCEDURES**

### **7.1 CALIBRATION**

Prior to any assembly or calibration procedure, the welding technicians shall verify that all material surfaces to be welded are clean and dry. If necessary, for conditioning purposes, the roll shall be kept inside the facility for at least one work shift prior to welding. A sample piece of material from the roll to be seamed shall be cut and kept for calibration purposes.

Calibration procedures shall be performed following any production halt: at the start of every shift, after every break and prior to staff or material change. Calibration procedures shall also be performed following any event causing temporary production halt such as power failure, over-heating, etc...

The QC technician shall perform a welding test on a sample piece of material, approximately 8" X 48" (200mm x 1.2 meter), from which 10 test specimens shall be die-cut. Five peel tests and five shear tests shall be performed by the QC technician on a calibrated tensiometer. Peel and shear specimens shall be alternated when cut from the seam sample.

A peel test is conducted by submitting a one inch-wide (25mm) strip of seam (specimen) to a tensile force on a calibrated tensiometer, trying to "peel" or open the seam (see figure 1). A shear test is similar, but the tension is applied in the plane of the seam (see figure 2).



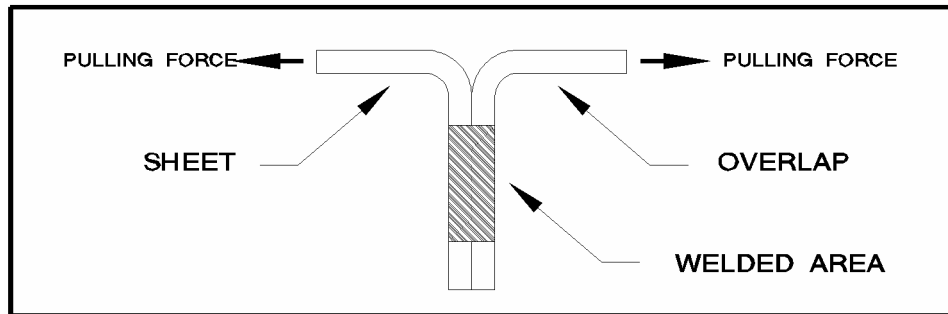


Figure 1 - PEEL TEST

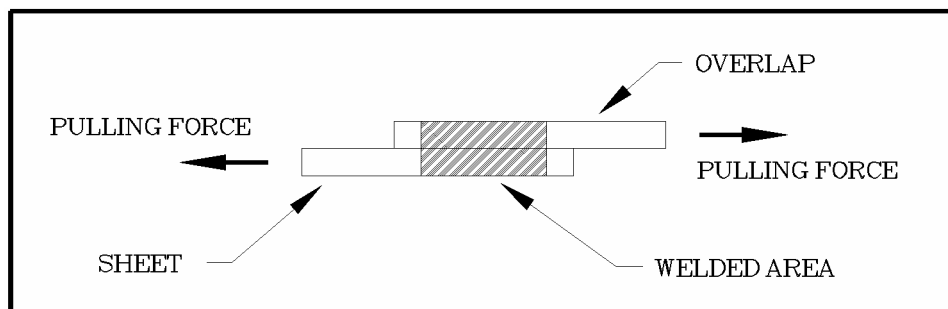


Figure 2 - SHEAR TEST

Peak values shall be recorded along with the locus of break (see "US-EPA Classification for types of break" in Appendix C). The QC technician shall verify that all calibration test results meet or exceed the project requirements for both peel and shear strength (see table 1 for typical peel and shear testing results).

Due to the lengthy testing process involved, welding may commence prior to the completion of all test results to prevent the welding equipment from excessive cooling. After testing 5 out of the 10 specimens, the QC technician may authorize welding to start if all results from those specimens meet the specified values.

## 7.2 DESTRUCTIVE TESTING (only upon request)



Destructive testing is performed at a frequency of 1 per 3000 linear feet (910 meters) of seaming, but not less than once per panel. On each sample, the same procedures described for calibration are followed, i.e. 5 specimens are tested for peel strength and 5 for shear strength. The QC technician shall verify that all destructive test results meet or exceed the project specific requirements (as shown in table 1 next page).

**Table 1 - Typical peel and shear strength values**

| <b>FACTORY SEAMS</b> |                           |                           |                               |                           |
|----------------------|---------------------------|---------------------------|-------------------------------|---------------------------|
|                      | <i><b>PEEL TEST</b></i>   |                           | <i><b>SHEAR TEST</b></i>      |                           |
| <b>MATERIAL</b>      | <b>STRENGTH<br/>(ppi)</b> | <b>BREAK<br/>(US-EPA)</b> | <b>STRENGTH<br/>(Lb./in.)</b> | <b>BREAK<br/>(US-EPA)</b> |
|                      | <b>Minimum</b>            |                           | <b>Minimum</b>                |                           |
| <b>Solmax 220</b>    | 12.5                      | FTB or<br>NON-FTB         | 38.4                          | FTB                       |
| <b>Solmax 230</b>    | 15.0                      | FTB or<br>NON-FTB         | 58.4                          | FTB                       |
| <b>Solmax 240</b>    | 15.0                      | FTB or<br>NON-FTB         | 79.8                          | FTB                       |
| <b>Solmax 250</b>    | 15.0                      | FTB or<br>NON-FTB         | 97.0                          | FTB                       |
| <b>Solmax 260</b>    | 15.0                      | FTB or<br>NON-FTB         | 116.0                         | FTB                       |

**NOTE:** For shear test, all specimens shall denote “brk” or “se” type locus of break as illustrated on the “single-track geomembrane weld” chart. . Values are as per PGI 1103

### 7.3 VISUAL INSPECTION AND REPAIR PROCEDURES

At all times, all welding personnel shall pay special attention to the integrity of the panel. Any suspected damage shall be reported immediately to the quality control technician who will temporarily stop production and proceed with repair procedures. Repairs shall consist of hand welding a patch with a hot air gun and pressure roller, followed by a visual verification of the repair. The QC technician shall then identify the repaired area on the corresponding record drawing.

## **7.4 DOCUMENTATION**

All manufacturer's certification results and in-house QC test results, along with the rolls used and the record drawings shall be enclosed in the final report (MF-CQ-31). Quality control test results shall be documented by the QC technician with the following information:

- Name of project
- Test number
- Weld number
- Date and time
- Power of the welding equipment
- Welding time
- Shear results
- Peel results
- Locus of break
- Name of QC technician
- Name of welding technician

This final report shall then be archived for a minimum period of 10 years. A copy shall be made available to the client, if requested.

## **7.5 SPECIMEN SAMPLES**

All specimen samples and an unused portion of the roll,  $\pm 6$  inches ( $\pm 150$ mm), shall be clearly identified with their corresponding test number and archived for a minimum of 10 years, unless otherwise specified. All specimen samples and unused portions shall be made available to the client upon request.

## **8. PANEL AND ROLL IDENTIFICATION**

Each panel shall be clearly identified with its corresponding number. Furthermore, each strip of material welded together to form the panel is also identified by its respective roll number. All unused portions of roll goods must be clearly identified for storage and further use.

## 9. PACKAGING

Each pallet can contain more than 1 panel and shall be packaged in a protective geotextile in order to prevent damage from shipping and handling. Special attention shall be given to all pallets for nails and chipped planks. In no event shall the panel rest directly on the wooden pallet; a cushion material must always be used between the pallet and the geomembrane panel. Each pallet shall be properly labeled with its corresponding project name, type of material, panel number and dimensions.



This certifies that

**Solmax International Inc.**

is a member of

**PVC Geomembrane Institute**

in good standing with all rights  
and privileges pertaining thereof.





# SGS

Certificate CA06/3886

The management system of  
Le système de gestion de

## Solmax International Inc.

2801, boul. Marie-Victorin,  
Varenes, Québec, J3X 1P7, Canada

has been assessed and certified as meeting the requirements of:  
a été évalué et enregistré selon les exigences de la norme :

### ISO 14001:2004

The scope of registration is as follows:  
La portée d'enregistrement est présentée ci-dessous:

**Fabrication de géomembranes et cordons d'extrusion de  
polyéthylène et assemblage de géomembranes PVC.  
Polyethylene geomembranes and extrusion rod manufacturing  
and PVC geomembrane prefabrication.**

Further clarifications regarding the scope of this certificate and the applicability of  
ISO 14001:2004 requirements may be obtained by consulting the organization.  
Des éclaircissements supplémentaires concernant la portée à ce certificat ainsi que l'applicabilité des  
exigences de la norme selon ISO 14001:2004 peuvent être obtenus en consultant l'organisme.

This certificate is valid from 20 July 2006 until 19 July 2009

Ce Certificat est valide du 20 juillet 2006 au 19 juillet 2009

Issue 1

Édition 1

Signed for and on behalf of SGS Systems & Services Certification Canada Inc  
Document signé pour et au nom de SGS Certification de Systèmes & Services Canada Inc



Managing Director

SGS Systems & Services Certification Canada Inc  
SGS Certification de Systèmes & Services Canada Inc  
6275 Northam Drive, Unit 2, Mississauga, Ontario, L4V 1Y8 Canada  
t (905)676-9595 t 1-800-636-0847 f (905)676-9519 [www.sgs.com](http://www.sgs.com)

SGS EMS 04 0105

Page 1 of 1







Certificate CA02/2694

The management system of  
Le système de gestion de

## Solmax International Inc.

2801, boul. Marie-Victorin  
Varenes, Québec, J3X 1P7, Canada

has been assessed and certified as meeting the requirements of:  
a été évalué et enregistré selon les exigences de la norme :

### ISO 9001:2000

The scope of registration is as follows:  
La portée d'enregistrement est présentée ci-dessous:

**Fabrication de géomembranes et cordons d'extrusion de polyéthylène  
et assemblage de géomembranes PVC.  
Polyethylene geomembrane and extrusion rod manufacturing and PVC  
geomembrane pre-fabrication.**

Further clarifications regarding the scope of this certificate and the applicability of  
ISO 9001:2000 requirements may be obtained by consulting the organization.  
Des éclaircissements supplémentaires concernant la portée de ce certificat ainsi que l'applicabilité des  
exigences de la norme selon ISO 9001:2000 peuvent être obtenus en consultant l'organisme.

This certificate is valid from 28 April 2008 until 27 April 2011

Ce certificat est valide du 28 avril 2008 au 27 avril 2011

Issue 3. Certified since February 2002

Édition 3. Enregistrée depuis février 2002

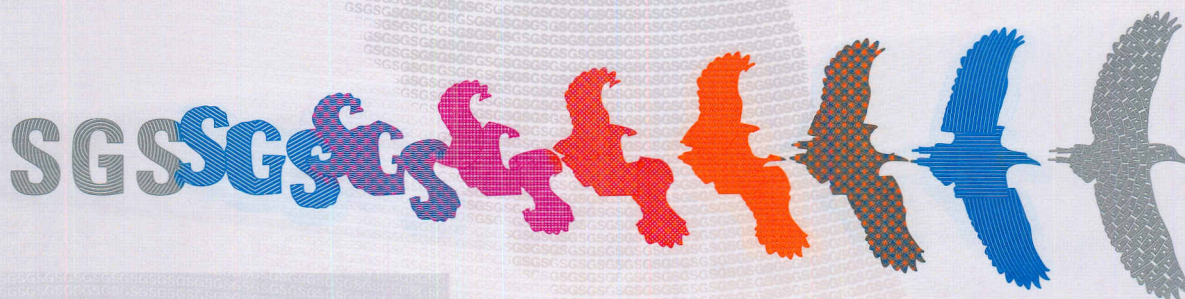
Signed for and on behalf of SGS Systems & Services Certification Canada Inc  
Document signé pour et au nom de SGS Certification de Systèmes & Services Canada Inc

Director Accreditation, North America

SGS Systems & Services Certification Canada Inc  
SGS Certification de Systèmes & Services Canada Inc  
201 Route 17 North, Rutherford, NJ 07070  
t 201-508-3000 t 1-800-747-9047 f 201-935-4555 www.sgs.com

SGS 9001-2 01 0303

Page 1 of 1





# terrafix<sup>®</sup>

## environmental U.S.A. inc.

---

P.O. Box 1226, 770 Main Street, Lewiston, Maine 04240 U.S.A. Tel: (207) 786-6808 Fax: (207) 786-6835

### QUALITY CONTROL MANUAL

#### *IMPORTANT NOTE*

The Terrafix Quality Control Manual is intended as a guideline only for geomembrane installation. This manual does not supercede the project specific specification.

#### *INTRODUCTION*

This manual addresses the Quality Control Program developed and utilized by Terrafix Environmental U.S.A. Inc. installation personnel to assure the quality of workmanship and the installation integrity of geomembranes. Terrafix Inc. recognizes that careful and specific documentation of the installation is required to substantiate this Quality Control Program.

#### *GEOMEMBRANE INSTALLATION*

##### **2.1 SUBGRADE SURFACE**

- 2.1.1** The general and/or earthwork contractor shall be responsible for preparing and maintaining the subgrade in a condition suitable for installation of the liner unless specifically agreed otherwise.
- 2.1.2** Surfaces to be lined shall be smooth and free of debris, roots, and angular or sharp rocks larger than three quarter (3/4) inches/9mm in diameter to a depth of four (4) inches/98mm. All fill shall consist of well-graded material free of organic, trash, clay balls or other damaging matter. No sharp edged stones, stones larger than one (1) inch/24.5mm in diameter or hard objects shall be allowed within the top four (4) inches/100mm of the subgrade. The surface shall be compacted in accordance with design specifications but in no event below the minimum required to provide a firm unyielding foundation sufficient to permit the movement of vehicles and welding equipment over the subgrade without causing rutting or other damaging effects. The subgrade shall have no sudden sharp or abrupt changes in grade.
- 2.1.3** The General and/or Earthwork Contractor shall protect the subgrade from desiccation, flooding and freezing, protection, if required, may consist of a thin plastic protective cover (or other material as approved by the engineer) installed over the completed subgrade until such time as the placement of geomembrane liner begins.

Subgrades found to have desiccation cracks greater than 1/2 inch/12.3mm in width or depth, or which exhibit swelling, heaving or other similar conditions shall be replaced or reworked by the general and/or earthwork contractor to remove these defects.

- 2.1.4** **Surface Acceptance:** Upon request, Terrafix Inc., will provide the Owner's and Contractor's Representatives with a written acceptance of the surface to be lined. This acceptance will be limited to an amount of area that Terrafix Inc. is capable of lining during a particular work shift. Subsequent repairs to the subgrade and the surface shall remain the responsibility of the earthwork contractor.

##### **2.2 CREST ANCHORAGE SYSTEM**

- 2.2.1** The anchor trench shall be excavated by the general and/or the earthwork contractor to lines and widths shown on the design drawings prior to geomembrane placement.
- 2.2.2** Anchor trenches excavated in clay soils susceptible to desiccation cracks should be excavated only the distance required for that days liner placement to minimize the potential of desiccation cracking of the clay soils.
- 2.2.3** Corners in the anchor trench shall be slightly rounded where the geomembrane adjoins the trench to minimize sharp bends in the geomembrane.

## **2.3 PREPARATION FOR GEOMEMBRANE DEPLOYMENT**

- 2.3.1 Panel Layout:** Prior to commencement of liner deployment, layout drawings shall be produced to indicate the panel configuration and location of seams for the project.
- 2.3.2 Identification:** Each panel used for the installation shall be given an numeric or alpha-number identifier consistent with the layout drawing. This identification number shall be related to a manufacturing roll number that identifies the resin type, batch number, and date of manufacture.

## **2.4 FIELD PANEL PLACEMENT**

- 2.4.1 Location:** Terrafix Inc. will attempt to install field panels at the location indicated on the layout drawing. If the panels are deployed in a location other than that indicated on the layout drawings, the revised location shall be noted in the field on an as-built drawing which will be modified at the completion of the project to reflect actual panel locations.
- 2.4.2 Weather Conditions:** Geomembrane deployment shall not be done during any precipitation, in the presence of excessive moisture (ie. fog, dew), in an area of standing water, or during high winds.

## **2.5 METHOD OF DEPLOYMENT**

- 2.5.1** The method and equipment used to deploy the panels must not damage the geomembrane or the supporting subgrade surface.
- 2.5.2** No personnel working on the geomembrane will smoke, wear shoes that can damage the geomembrane, or engage in actions which could result in damage to the geomembrane.
- 2.5.3** Adequate temporary loading and/or anchoring, (ie. sandbags, tires), which will not damage the geomembrane, will be placed to prevent uplift of the geomembrane by wind.
- 2.5.4** The geomembrane will be deployed in a manner to minimize wrinkles.
- 2.5.5** Any damage to a panel of geomembrane will be repaired in accordance with paragraph 4.3. Any area of a panel seriously damaged (torn, twisted, or crimped) will be marked, cut out, and removed from the work area with resulting seaming and/or repairs performed in accordance with Paragraph 4.3 of this document.

## **2.6 FIELD SEAMING**

### **2.6.1 General Requirements:**

- 2.6.1.1 Layout:** In general seams shall be oriented parallel to the slope, ie., oriented along, not across the slope. Whenever possible, horizontal seams should be located not less than five (5) feet/1.52 m from the toe of the slope. Each seam made in the field shall be numbered in a manner that is compatible with the panel layout drawing for documentation of seam testing results.
- 2.6.1.2 Personnel:** All personnel performing seaming operations shall be trained in the operation of the specific seaming equipment being used and will qualify by successfully welding a test seam as described in Paragraph 2.5.3. The project foreman will provide direct supervision of all personnel seaming to verify proper welding procedures are followed.
- 2.6.1.3 Equipment:**

**Fusion Welding:** Fusion Welding consists of placing a heated wedge, mounted on a self propelled vehicular unit, between two (2) overlapped sheets such that the surface of both sheets are heated above the polyethylene's melting point. After being heated by the wedge, the overlapped panels pass through a set of preset pressure wheels which compress the two (2) panels together so that a continuous homogenous fusion weld is formed. The fusion welder is equipped with a temperature readout device which continuously monitors the temperature of the wedge.

**Extrusion Fillet Welding:** Extrusion fillet welding consists of introducing a ribbon of molten resin along the edge of the seam overlap of the two (2) sheets to be welded. The molten polymer causes some of the material of each sheet to be liquified resulting in a homogeneous bond between the molten weld bead and the surfaces of the sheets. The extrusion welder is equipped with gauges giving the temperature at the nozzle.

- 2.6.1.4 Weather Conditions:** Terrafix Inc., relies on the experience of the project Superintendent and the results of test seams to determine seaming restrictions by weather. Many factors, such as ambient temperature, humidity, wind, sunshine, etc., can effect the integrity of field seams and must be taken into account when deciding whether or not seaming should proceed. Test seams, as described in Paragraph 2.5.3. are required prior to daily production seaming to determine if the weather conditions will effect Terrafix Inc., ability to produce quality seams. Additional non-destructive and destructive testing of productions seams substantiate the decision made by the Project Superintendent to seam on any given day.

**2.6.2 Seam Preparation:**

- 2.6.2.1 Fusion Welding:** Overlap the panels of Geomembrane approximately six (6) inches/150mm. Clean the seam area prior to seaming to assure the area is clean and free of moisture, dust, dirt, debris of any kind. No grinding is required for fusion welding.

Adjust the panels so that seams are aligned with the fewest possible number of wrinkles and "fishmouths".

A moveable protective layer may be used, at the discretion of the Terrafix Inc., Project Superintendent, directly below the overlap of geomembrane.

- 2.6.2.2 Extrusion Welding:** Overlap the panels of Geomembrane a minimum of four (4) inches/98mm. Temporarily bond the panels of Geomembrane to be welded, taking care not to damage the geomembrane.

Clean the seam area prior to seaming to assure the area is clean and free of moisture, dust, dirt and debris of any kind. Grind seam overlap prior to welding within one (1) hour of welding operation in a manner that does not damage the Geomembrane.

Purge the extruder prior to beginning the seam remove all heat-degraded extrudate from the barrel. Keep welding rod clean and minimize contact with the ground.

- 2.6.3 Test Seams:** Test seams shall be performed at the beginning of each seaming period and at least once each five (5) hours for each seaming apparatus used that day. Test seams shall be made on fragment pieces of the geomembrane liner and under the same conditions as the actual field installation.

- 2.6.3.1 Test Seam Length:** The test seam shall be at least three (3) feet/0.91m long and should be made by joining two (2) pieces of geomembrane at least 9 inches/220.5mm in width.

- 2.6.3.2 Sample Procedure:** Visually inspect the seam for squeeze out, footprint, pressure, and general appearance.

Two random samples one (1) inch/24.5mm wide shall be cut from the test seam. The specimens shall then be tested in peel using a field tensiometer and shall not fail in the seam. If a specimen fails the entire procedure shall be repeated.

If any of the second set of specimens fail, the seaming apparatus shall not be accepted and shall not be used for seaming until the deficiencies are corrected and a passing test seam is achieved.

After completion of the test the remaining portion of test seam can be discarded. Documentation of the test seams will be maintained listing seamer identification number, welder's name, temperature control setting and test results.

Passing test results records shall be maintained on Terrafix Inc. Form 1 (Pre-weld qualification testing) as enclosed.

- 2.6.3.3 General Seaming Procedures:** Seaming shall extend to the outside edge of panels to be placed in the anchor trench. While welding a seam, monitor and maintain the proper overlap. Inspect seam area to assure area is clean and free of moisture, dust, dirt, debris of any kind. Monitor temperature gauges to assure proper settings are maintained and that the



seaming apparatus is operating properly. Align wrinkles at the seam overlap to allow welding through the wrinkle.

Fishmouths or wrinkles at seam overlaps that cannot be welded through shall be cut along the ridge in order to achieve a flat overlap. The cut fishmouth or wrinkle shall be seamed. Any portion where the overlap is inadequate shall be patched with an oval or round patch of the same geomembrane extending a minimum of six (6) inches/147mm beyond the cut in all directions.

All cross/butt seams between two (2) rows of seamed panels shall be welded during the coolest time of the day to allow for contraction of the geomembrane.

All "T" joints shall have the overlap from the wedge welder seam trimmed back to allow an extrusion fillet weld. Then grind two (2) inches/49.5mm minimum on either side of the wedge welder seam and extrusion weld all of the area prepared by grinding.

### ***SEAM TESTING - GEOMEMBRANES***

#### **3.1 CONCEPT**

**3.1.1** Terrafix Inc. installation crews will non-destructively test all field seams over their full length using air pressure, vacuum or other approved test methods, to verify the continuity and integrity of the seams.

#### **3.2 AIR PRESSURE TESTING**

The welded seam created by Terrafix Inc's., fusion welding process is composed of two distinct welded seams separated by an un-welded channel approximately 3/8 of an inch/9mm wide. The presence of the un-welded channel between the two welded seams permits Terrafix Inc's., fusion seams to be tested by inflating the sealed channel with air to a predetermined pressure and observing the stability of the pressurized channel over time.

**3.2.1 Equipment for Air Testing:** An air pump (manual or motor driven) capable of generating and sustaining a pressure between 25 to 30 psi., a rubber hose with fittings and connections, a sharp hollow needle with a pressure gauge capable of reading and sustaining a pressure between 25 to 30 psi. (or other approved pressure feed device).

**3.2.2 Procedure for Air Testing:** Seal both ends of the seam to be tested. Insert needle or other approved pressure feed service into the sealed channel created by the fusion weld.

Inflate the test channel to a pressure between 25 to 30 psi, in accordance with the following schedule, close valve, and observe initial pressure after approximately 2 minutes.

#### **INITIAL PRESSURE SCHEDULE\***

| MATERIAL THICKNESS (MIL) | MINIMUM PRESSURE | MAXIMUM PRESSURE |
|--------------------------|------------------|------------------|
| 40                       | 25               | 30               |
| 60                       | 27               | 30               |
| 80                       | 30               | 30               |
| 100                      | 30               | 30               |

\* Initial pressure settings are read after a two minute "relaxing period". The purpose of this "relaxing period" is to permit the air temperature and pressure to stabilize.

Observe and record the air pressure five (5) minutes after "relaxing period" ends and initial pressure setting is used. If loss of pressure setting is used. If loss of pressure exceeds the following or if the pressure does not stabilize, locate faulty area and repair in accordance with Paragraph 4.3.

**MAXIMUM PERMISSIBLE PRESSURE DIFFERENTIAL  
AFTER 5 MINUTES**

| MATERIAL THICKNESS (MIL) | PRESSURE DIFFERENCE |
|--------------------------|---------------------|
| 40                       | 4                   |
| 60                       | 4                   |
| 80                       | 4                   |
| 100                      | 4                   |

At the conclusion of the pressure test the end of the seam opposite the pressure gauge will be cut to ensure that the seam is not blocked. If the seam is blocked then the test will have to be repeated after the blockage is corrected. Remove needle or other approved pressure feed device and seal resulting hole by extrusion welding. Record test results on Terrafix Inc. Form 3 (Seam Recording and Air Testing) as enclosed.

- 3.2.3 In the event of a Non-Complying Air Pressure Test:** Check seam end seals and retest seams. If non-compliance with specified maximum pressure differential reoccurs, cut one (1) inch/24.5mm samples from each end of the seam and additional samples at the distance specified in Paragraph 3.4.3.1. Perform destructive peel tests on the samples using the field tensiometer.

If all samples pass destructive testing remove the overlap left by the wedge welder and vacuum test the entire length of seam in accordance with Paragraph 3.3. If a leak is located by the vacuum test, repair by extrusion welding. Test the repair by vacuum testing. If no leak is discovered by vacuum testing, the seam will be considered complete. If one or more samples fail the peel tests, additional samples will be taken in accordance with Paragraph 3.4.3.

When two (2) passing samples are located, the seam between these two (2) locations will be considered non-complying. The overlap left by the wedge welder will be heat tacked in place along the entire length of seam and the entire length of seam will be extrusion welded. Test the entire length of the repaired seam by vacuum testing in accordance with Paragraph 3.3.

**3.3. VACUUM TESTING**

This test is used when the geometry of the weld makes air pressure testing impossible or impractical or when attempting to locate the precise location of a defect believed to exist after air pressure testing.

- 3.3.1 Equipment for Vacuum Testing:** Vacuum box assembly consisting of a rigid housing, a transparent viewing window, a soft neoprene gasket attached to the bottom, port hole or valve assembly and a vacuum gauge. Vacuum pump assembly equipped with a pressure controller and pipe connections, a rubber pressure/vacuum hose with fittings and connections and bucket and means to apply a soapy solution.

- 3.3.2 Procedure for Vacuum Testing:** Trim excess overlap from seam, if any. Turn on the vacuum pump to reduce the vacuum box to approximately 3 in. of mercury, ie., 3 psi gauge. Apply a generous amount of a solution of strong liquid detergent and water to the area to be tested.

Place the vacuum box over the area to be tested and apply sufficient downward pressure to "seat" the seal strip against the liner. Close the bleed valve and open the vacuum valve. Apply a minimum of 3 in. Hg vacuum to the area as indicated by the gauge on the vacuum box. Ensure that a leak tight seal is created.

For a period of not less than 30 seconds, examine the geomembrane through the viewing window for the presence of soap bubbles. If no bubbles appear after 30 seconds, close the vacuum valve and open the bleed valve, move the box over the next adjoining area with a minimum 3 in. overlap, and repeat the process.

- 3.3.3 Procedure for non-complying test:** Mark all areas where soap bubbles appear and repair the marked areas in accordance with Paragraph 4.3. Retest repaired areas.

### 3.4 DESTRUCTIVE TESTING

The procedure of destructive testing is to determine and evaluate seam strength. These tests require direct sampling and thus subsequent patching. Therefore, destructive testing should be held to a minimum to reduce the amount of repairs to the geomembrane.

**3.4.1 Procedure for Destructive Testing:** Destructive test samples shall be marked and cut out randomly at a minimum average frequency of one test location every 1000 feet/or 300m of seam length. Additional destructive tests may be taken in areas of contamination, offset welds, visible crystallinity or other potential cause of faulty welds. Field test five (5) coupons in peel and five (5) coupons in shear and at least four (4) out of the five (5) coupons must pass the tensile strength properties in both peel and shear. Minimum strength of field seams when tested in shear shall be 90 percent and in peel 60 percent of the unseamed liner.

**3.4.2 Sample Size:** The sample should be twelve (12) inches wide/305mm with a seam fourteen (14) inches/356mm long centered lengthwise in the sample. The sample may be increased in size to accommodate independent laboratory testing by the owner at the owner's request or by specific project specifications.

A one (1) inch/24.5mm sample shall be cut from each end of the test seam for field testing. The two one (1) inch/24.5mm samples shall be tested in the field in a tensiometer for peel. If any field sample fails to pass, it will be assumed the sample fails destructive testing. The procedure outlined in Paragraph 3.4.3. shall be followed to locate passing samples to send to the laboratory.

If the sample passes the field test, the remaining portion of the sample test strip shall be sent to Terrafix Inc. These samples will be held in inventory available for further evaluation if required.

**3.4.3 Procedure in the event of Destructive Test Failure:** Cut additional field samples for testing. In the case of a field production seam, the samples must lie a minimum of ten (10) feet/3m in each direction from the location of the failed sample. Perform a field test for peel strength. If these field samples pass, then laboratory samples can be cut and forwarded to a laboratory for full testing.

If the laboratory samples pass then reconstruct the seam between the two (2) passing sample locations. Heat tack the overlap along the length of the seam to be reconstructed and extrusion weld. Vacuum test the extrusion weld. If either of the samples fail then additional samples are taken in accordance with the above procedure until two (2) passing samples are found to establish the zone in which the seam should be reconstructed.

All passing seams must be bounded by two (2) locations from which samples passing laboratory destructive tests have been taken. In cases of reconstructed seams exceeding 150 feet/45m a destructive samples must be taken and pass destructive testing from within the zone in which the seam has been reconstructed. All destructive seam samples sent to Terrafix Inc's, office shall be numbered and recorded on Terrafix Inc. Form 2 (Destructive Seam Testing) as enclosed.

### 3.5 QUALITY ASSURANCE LABORATORY TESTING

The remaining destructive sample may be sent to a laboratory and will be tested in "Seam Strength" and "Peel Adhesive" [ASTM D6392 with specimen 0.5 inches wide tested at two (2) inches per/minute]. Five (5) specimens shall be tested for each test method with data recorded. Four (4) out of the five (5) specimens must pass and not have more than 10% Film Tear Bond for each test in order for the seam to be considered acceptable.

## *DEFECTS AND REPAIRS*

### 4.1 CONCEPT

**4.1.1** Terrafix Inc. Project Superintendent shall conduct a detailed walk through and visually check all seams and non-seam areas of the geomembrane for defects, holes, blisters, and signs of damage during installation. All other Terrafix Inc., installation personnel shall, at all times, be on the lookout for any damaged area. Damaged area shall be marked and repaired.

## 4.2 REPAIR PROCEDURES

Any portion of the geomembrane showing a flaw, or failing a destructive or non-destructive test shall be repaired. Several procedures exist for repair and the decision as to the appropriate repair procedure shall be made by Terrafix Inc. Project Superintendent.

Procedures available for repair:

- 4.2.1 **Patching:** Used to repair large holes, tears and destructive sample locations. All patches shall extend at least six (6) inches/147mm beyond the edges of the defect and all corners of patches shall be rounded.
- 4.2.3 **Grinding and welding:** Used to repair sections of extruded seams.
- 4.2.4 **Spot welding or seaming:** Used to repair small tears, pinholes or other minor localized flaws.
- 4.2.5 **Capping:** Used to repair lengths of failed extruded seams. Removal of a bad seam and replacement with a strip of new material seamed into place.
- 4.3 **Verification of Repairs:** Every repair shall be non-destructively tested using the methods set out in Paragraph 3.4. Repairs which pass the non-destructive test shall be deemed adequate. Large repairs may require destructive test. Repair test results shall be logged on Terrafix Inc. Form 4 (Repair Report) as enclosed.

*-End-*

## **PRE-WELD QUALIFICATION TESTING**

PROJECT: \_\_\_\_\_

QC TECHNICIAN: \_\_\_\_\_

SHEET \_\_\_\_ OF \_\_\_\_

[illegible]



## DESTRUCTIVE SEAM TESTING

PROJECT: \_\_\_\_\_

QC TECHNICIAN: \_\_\_\_\_

SHEET \_\_\_\_ OF \_\_\_\_

[illegible]

PROJECT: \_\_\_\_\_

QC TECHNICIAN: \_\_\_\_\_

SHEET \_\_\_\_ OF \_\_\_\_

[illegible]

TERRAFIX INC.

FORM 4

## REPAIR REPORT

PROJECT: \_\_\_\_\_

QC TECHNICIAN: \_\_\_\_\_

SHEET \_\_\_\_ OF \_\_\_\_

[illegible]

# terrafix<sup>®</sup>

## environmental U.S.A. inc.

---

P.O. Box 1226, 770 Main Street, Lewiston, Maine 04240 U.S.A. Tel: (207) 786-6808 Fax: (207) 786-6835

### **CERTIFICATE OF SUBGRADE ACCEPTANCE**

PROJECT: \_\_\_\_\_

DATE: \_\_\_\_\_

CLIENT: \_\_\_\_\_

TERRAFIX REP: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_

Terrafix Environmental U.S.A. Inc. hereby accepts the area(s) defined below as being suitable to receive  
\_\_\_\_\_. This acceptance applies only to the visible surface of the subgrade and is in no way  
applicable to the structural stability and overall suitability of the subgrade.

AREA CERTIFIED: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# **terrafix<sup>®</sup>**

## **environmental U.S.A. inc.**

---

P.O. Box 1226, 770 Main Street, Lewiston, Maine 04240 U.S.A. Tel: (207) 786-6808 Fax: (207) 786-6835

### **SAFETY MANUAL**

#### ***THE FOLLOWING SAFE PRACTICES ARE LISTED FOR YOUR PROTECTION***

##### **INTRODUCTION**

We expect each one of you not only to **READ** these rules and regulations but to **ABIDE** by them in your work. Each operation presents its own problem and no two jobs are alike. However, by following these safety practices along with all of our client's safety regulations, you can help us in making each project a safe place of employment for yourself and your fellow workers.

Accidents can be avoided and, therefore, Terrafix insists that everyone works safely. Always use good judgment and common sense. Remember that no one profits from accidents. We are concerned about your safety, help **US** keep **YOU** safe!

Should you require any additional information regarding this pamphlet, please contact:

Blu Alexander, Construction Manager  
Terrafix Environmental U.S.A. Inc.  
(207) 786-6808 PH  
(207) 786-6835 FX

##### **SUPERVISORS RESPONSIBILITY**

1. Be responsible for the safety of the entire project under their charge including accident investigation and reporting.
2. Actively enforce all aspects of the Occupational Health & Safety Act, project specific safety concerns as well as those of the company Safety Policies.
3. Train and explain safety procedures and policies to their workers, particularly to new workers.
4. Advise their workers of potential or actual dangers including hazardous materials specific to the work place.
5. Ensure personal protective equipment is used by workers as needed to perform their work in a safe manner.
6. Ensure that all equipment including safety and protective equipment is in good operating condition and that any defective equipment is immediately tagged and removed for repair.
7. Cooperate fully with the Safety Coordinator, where applicable.
8. Report all accidents and incidents immediately to management. WCB form must be submitted within 2 days of accident to WCB to prevent a fine of \$300.00 for late reporting. Accidents can now be phoned in at **(800) 636-4292**.
9. Investigate thoroughly any accident or incident occurring in the work place and implement the remedial steps necessary to prevent a recurrence.
10. Promptly submit to management any Accident/injury Report for every medical aid and/or lost time injury.

##### **EMPLOYEES RESPONSIBILITY**

1. Perform their work with a safety first attitude.
2. Comply with the Occupational Health & Safety Act as well as this company's Safety Policy.
3. Immediately report any injury or accident, no matter how minor, to their supervisor.



4. Immediately report to their supervisor any condition, practice or hazard which may cause injury to a worker or damage to equipment.
5. Wear, use and properly maintain personal protective equipment wherever required by their supervisor.
6. Be accountable for their own safety and work in a manner so as not to endanger fellow workers.

### **GENERAL SAFE PRACTICES**

1. All employees shall follow safe procedures, render every aid to safe operation and report all unsafe conditions or practices immediately to his foreman or supervisor.
2. Our foremen and supervisors are instructed to insist on employees obeying rules and regulations in order to promote good safety practices for the protection of the employees as is necessary to the safe conduct of the work. They will take such action as is necessary to enforce these instructions.
3. Ask your foreman or supervisor if you do not know how or are in doubt as to the safe way of doing your job.
4. Ignorance of safety rules and practices is no excuse for their violation.
5. Help the new or inexperienced employee by pointing out potential hazards which may arise from electrical sources, gases, chemicals, radiation, heat, slip and fall, etc.
6. Employees are to be alert and report any deficiency in the way of defective tools, equipment, guards or protective devices immediately to the foreman or superintendent.
7. Careful investigation as to possible danger to other persons is necessary before beginning any operation.
8. Horseplay, gambling or fighting will not be tolerated.
9. Anyone known to be under the influence of intoxicating liquor shall not be allowed on the job while in that condition.
10. Intoxicating beverages, firearms or other weapons must not be brought to the job any time.
11. Illegal possession or use of narcotics and/or non-prescribed tranquilizers or pep pills on company premises or project sites are forbidden.
12. Operate only the equipment you are authorized to use.
13. Before doing any climbing, inspect the soles of your shoes and clean them of any slippery substance such as mud or oil.
14. Do not use carbon tetrachloride for any purpose. Carbon TET vapors can be fatal if inhaled.
15. Caution should be used in handling injurious or poisonous substances. Follow special instruction from authorized sources regarding this matter.
16. Unless it's an emergency, running is prohibited.
17. Transistor radios and walkman radios are not to be allowed, used, or carried by any Terrafix personnel while in the field.

### **HOUSEKEEPING**

1. Our working areas are to be kept free from all unnecessary debris and waste material.
2. All scrap is to be removed and deposited in proper containers. Keep all materials piled neatly.

3. Bolts, nuts, etc. should be kept in containers or removed from the work area when no longer needed. During bolting operations continuous policing of the area should be a regular procedure.
4. All tools and other equipment are to be returned to their proper place after use.
5. Special attention is to be given to the removal and disposal of oily rags, paint cans and any container that may have held flammable liquids.
6. Eliminate the slipping and falling hazards caused by oil and liquid spillage by immediately wiping or spreading an absorbing material on the area.
7. Walkways, scaffolds and stairways must be kept clear of welding cords, hoses, small tools and equipment.
8. Change rooms and rest rooms must be kept clean. Place lunch bags, papers, drinking cups and other refuse in the container provided for their disposal.

### **FOR YOUR PERSONAL PROTECTION**

1. Employees should wear suitable personal clothing for the type of work they will be performing.
2. Loose or frayed clothing, finger rings, dangling ties, etc. should not be worn around moving machinery or other sources of entanglement.
3. All site workers must wear approved safety footwear. Unless instructed otherwise by his supervisor.
4. Approved hard hats will be worn by all employees and authorized visitors at all field locations outside the office area. No "bump caps," "baseball bean caps," etc. are allowed.
5. Suitable goggles and/or face shields shall be worn when welding, grinding, buffing, sanding, cutting, chipping, handling acids and caustics, and while working in locations where there is a possibility of injury to eyes or face.
6. Employees are not allowed to ride on running boards, fenders, side rails, tops of vehicles, extend legs over the side of any truck bed or stand up in the bed of any truck or vehicle while machine is in motion.
7. Compressed air is not to be used for blowing dust from body parts or clothing. Never point an open air hose at other persons.
8. When lifting, use the large muscles of your legs rather than the small muscles of your back. Take a firm grip, secure a good footing, place the feet a comfortable distance apart, keep the load close, keep your back straight, bend your knees and lift with your legs.
9. If the load is too heavy, get help. Don't strain.
10. Use safety belts and life lines when working from high places, as required by federal, provincial, or local safety regulations.

### **MATERIAL HANDLING**

1. Remember - in lifting, the safe way is the best and easiest way. The back and stomach muscles are easily injured and they bear most of the strain if lifting is done incorrectly.
2. Never use ropes, chains, or slings that are defective. Make sure all loads are centered in slings before lifting and use extreme care in removing slings from piled stock.
3. Don't stand under loads.

4. Don't ride loads.
5. Stand clear of any taut cables and lifting devices.

### **ELECTRICAL**

1. When working in or on energized substations, transmission lines, power plants, etc., accident prevention rules, procedures and regulations of our client are to be followed by all Terrafix Environmental U.S.A. Inc. employees.
2. Never make repairs to electrical equipment unless you know the proper manner of doing the work.
3. No electrical work should be done "hot" which can be done "cold".
4. Always respect electricity! It takes very little electric current to kill. If the contact is good for only an instant, 110 volts may kill, and there have been many cases where voltage as low as 60 or 70 volts have been fatal.
5. Metal ladders shall not be used for electrical work or where they may contact electrical conductors.

### **LADDERS & SCAFFOLDS**

1. Ladders are to be placed with care. The bottom of the ladder should be away from the wall and never more than one-fourth of the perpendicular height of the ladder.
2. A ladder should not be placed at a blind corner or a doorway where it could be displaced. If it is necessary to use a ladder in such places, the area is to be blocked off.
3. Ladders are not to be placed upon unstable objects such as boxes, loose lumber, etc. This is usually done to obtain additional height. A longer ladder should be obtained for this purpose.
4. Don't use a step ladder as a straight ladder.
5. Metal ladders are not to be used around electrical wiring or while working on or near electrical equipment.
6. Face the ladder when ascending or descending and use both hands.
7. Inspect the scaffolds and ladders on which you are to work to make certain they are safe and that they remain safe.
8. Any damage to scaffolds, false work or other supporting structures must be reported to the foreman.
9. Scaffold planks are to be carefully selected, tested and made secure to prevent slipping by using cleats, toeing or wiring.
10. Suitable handrails for personnel protection should be installed on all scaffolds.
11. As far as safety is concerned, there is no such thing as a "temporary scaffold". Build all scaffolds with safety in mind as the "temporary scaffold" many times is used for a longer time than originally anticipated.
12. Never overload a scaffold. Scaffolds should be designed and built to take the maximum material load that may be placed on them as well as the weight of the workmen.
13. Damaged or broken ladders shall be tagged, "Do Not Use" until the ladder has been repaired and tag removed.
14. Do not work from either of the top two rungs of any portable ladder.
15. All scaffolds must comply with the Provincial Regulations.
16. The ladder must extend at least one meter above the platform or excavation or resting surface.

## **HAND TOOLS**

1. Your job can be made safer and easier if (a) the right tool is selected for the job; (b) used in the right way; (c) properly maintained; (d) properly stored when not in use.
2. All portable electric hand tools should be grounded.
3. Inspect cords of electric tools regularly. Don't lay the cord on oily or chemically saturated floor. Never pull on the cord when it is kinked or pinched. Don't lift or lower the tool with the cord.
4. Don't use defective tools. Turn them in for repair or exchange.
5. All sharp edge tools should be kept sharp. They are safer and more efficient than dull ones.
6. Don't carry sharp or pointed tools in your pocket.
7. Tools are not to be left lying in elevated places, in walkways, aisles or stairways.

## **EQUIPMENT**

1. A piece of equipment is only as safe as the operator and the mechanic. Our equipment is built for safe, economical operation and long life, yet each piece is subject to intelligent use and maintenance.
2. Only experienced men are allowed to operate power equipment. Before being allowed to operate machinery or equipment the employee must prove by actual demonstration that he understands the operation.
3. Do not operate equipment in an unsafe condition. All operators should make a careful inspection of their equipment at the start of each shift.
4. Cleaning, oiling or repairing is not to be done on equipment while it is in operation unless special provisions have been made to do it safely with specific instructions from the supervisor and the complete knowledge of the operator.

## **FIRE PREVENTION**

1. All employees must take every precaution to prevent fire. Do not tamper with fire fighting equipment. Observe "No Smoking" rules. Use extra care when and where smoking is permitted.
2. The use of gasoline or other highly volatile material for starting fires is prohibited.
3. Gasoline is not to be used for cleaning purposes.
4. Appropriate closed containers are to be used for gasoline, kerosene, acids and similar fluids. Containers are to be plainly marked to indicate the character of the contents. The fuel storage area is a "No Smoking" area.
5. Ground all temporary gasoline storage tanks used in construction.
6. In case of fire: Keep calm. Report the fire immediately, giving the location, your name and telephone extension if applicable. Consider first the safety of all personnel, then direct attention to the saving of property.
7. Know where the fire extinguisher are located and how to operate them. After a fire extinguisher has been used, notify your foreman whose duty is to see that proper replacement is made promptly.

## **JOB INJURIES & SICKNESS**

1. All injuries, no matter how slight they may seem, must be reported to the proper representatives of Terrafix Environmental Technology Inc. (your foreman or office manager or preferably the first aid department) so that

arrangements can be made for medical or first aid treatment. If you must leave the job because of illness or injury (either industrial or nonindustrial) be sure to notify your supervisor before leaving.

2. Do not move an injured person unless it is necessary to do so in order to prevent further injury. Keep the injured as comfortable as possible and without delay send for the nurse, first aid attendant or other medical aid.
3. Haste in giving first aid is sometimes harmful. There are two instances when speed is necessary; (a) severe bleeding (b) artificial respiration.
4. Do not attempt to remove foreign particles from your eye or body or from the eye or body of others. Get qualified treatment from First Aid.
5. No one will knowingly be permitted or required to work while his ability or alertness is so impaired by fatigue, illness or other causes that it might necessarily expose himself or others to injury.

### **SITE TRANSPORT RULES**

1. No person shall drive a Site Vehicle unless he has a valid Driver's License and he is authorized to do so.
2. No vehicle shall be used during the hours of darkness unless it has suitable lights or the area is floodlit.
3. No driver shall alight from a vehicle unless he has ensured that it cannot accidentally move.
4. It is an offence to drive any Site Vehicles without due care and attention.
5. All drivers must inspect their vehicles at least once a day and any defects must be reported to the person in charge.
6. No vehicle shall be loaded in such a manner or to such an extent as to interfere with the safe driving and operation of the vehicle.
7. These rules and any signs erected around the site must be adhered to at all times.
8. No passengers are to be carried unless they are seated and in a secured position with no parts of their body protruding the vehicle.

*-End-*



# terrafix<sup>®</sup>

## environmental U.S.A. inc.

FORM 13

P.O. Box 1226, 770 Main Street, Lewiston, Maine 04240 U.S.A. Tel: (207) 786-6808 Fax: (207) 786-6835

### WEEKLY SAFETY MEETING

PROJECT: \_\_\_\_\_  
SUPERVISOR: \_\_\_\_\_  
DATE: \_\_\_\_\_

**GENERAL CONSTRUCTION SAFETY:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**PERSONAL PROTECTION:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**MATERIALS HANDLING (KNIFES):** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**ELECTRICAL/EQUIPMENT:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**SITE TRANSPORT RULES:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**FIRE PREVENTION:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**HOUSEKEEPING:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

ATTENDED BY

|       |       |       |
|-------|-------|-------|
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |



# TECHNICAL DATA SHEET

## Geomembrane PVC Smooth

Solmax International Inc., 2801 Boul. Marie-Victorin, Varennes, Qc, Canada, J3X 1P7  
Tel.: (450) 929-1234 Fax: (450) 929-2550 www.solmax.com

| PROPERTY                             | TEST METHOD †††† | UNIT<br>Imperial | Solmax 240-1000<br>PVC-40-000 |
|--------------------------------------|------------------|------------------|-------------------------------|
| CERTIFIED PROPERTIES †               |                  |                  |                               |
| Thickness (Nominal $\pm 5\%$ )       | ASTM D-5199      | mils             | 40                            |
| Tensile Properties (min. MD & TD)    | ASTM D-882       |                  |                               |
| Strength at Break                    |                  | ppi              | 97                            |
| Elongation at Break                  |                  | %                | 430                           |
| Modulus at 100%                      |                  | ppi              | 40                            |
| Tear Resistance (min. avg.)          | ASTM D-1004      | lbs              | 10                            |
| Dimensional Stability                | ASTM D-1204      | %                | 3                             |
| Weight                               | -                | lbs/sf           | 0.273                         |
| Low Temperature Impact (pass)        | ASTM D-1790      | °F               | -20                           |
| INDEX PROPERTIES ††                  |                  |                  |                               |
| Specific gravity (typical)           | ASTM D-792       | g/cc             | 1.20                          |
| Water Extraction (max. loss)         | ASTM D-1239      | %                | 0.20                          |
| Average Plasticizer Molecular Weight | ASTM D-2124      |                  | 400                           |
| Volatile Loss (max. loss)            | ASTM D-1203      | %                | 0.5                           |
| Soil Burial (max. chg.)              | ASTM G-160       |                  |                               |
| Break Strength                       |                  | %                | 5                             |
| Elongation at Break                  |                  | %                | 20                            |
| Modulus at 100%                      |                  | %                | 20                            |
| Hydrostatic Resistance (min.)        | ASTM D-751       | psi              | 120                           |
| GENERAL INFORMATION †††              |                  |                  |                               |
| Color                                | -                |                  | Grey (Gris)                   |
| Surface                              | -                |                  | Smooth (Lisse)                |
| Panel Width Multiples                | -                | in               | 85                            |
| FACTORY SEAM STRENGTHS               |                  |                  |                               |
| Shear Strength (min.)                | ASTM D-882       | ppi              | 77.6                          |
| Peel Strength (min.)                 | ASTM D-882       | ppi              | 15                            |

### NOTES

†. Certified properties are tested once per lot, or once every 40,000 lbs of material (18,000 kg), whichever is more frequent. Tensile properties : 1" wide samples, 95 psi line pressure and 360 kgf (809 lbf) clamping force.

††. Index properties are tested once per formulation. A certified statement of the test results for the formulation is to be made available to the customer on request.

†††. Custom panel sizes are available and panel dimensions may vary  $\pm 1\%$ .

††††. Modifications or further details of test are described in PGI 1104 Appendix B or ASTM D 7176 standard.

\* The information contained herein is provided for reference purposes only and is not intended as a warranty of guarantee. Final determination of suitability for use contemplated is the sole responsibility of the user. SOLMAX assumes no liability in connection with the use of this information.

# terrafix<sup>®</sup> environmental U.S.A. inc.

P.O. Box 367, 34 Court Street Auburn, Maine 04212 U.S.A. Tel: (207) 786-6808 Fax: (207) 786-6835

## ***DON TORGERSON ~ SUPERVISOR/MASTER SEAMER*** ***INSTALLATION REFERENCES***

Don previously worked for Geopacific Environmental Inc.

| YEAR | PROJECT                 | PRODUCT                              | QUANTITY                                           | LOCATION         |
|------|-------------------------|--------------------------------------|----------------------------------------------------|------------------|
| 2001 | LANDFILL CLOSURE        | 40 MIL LLDTPPE                       | 700,000 FT <sup>2</sup>                            | MONTPELIER, VT   |
| 2001 | LANDFILL CLOSURE        | 40 MIL LLDTPPE                       | 150,000 FT <sup>2</sup>                            | NEWBURY, VT      |
| 2001 | LANDFILL CLOSURE        | 60 MIL HDTPE                         | 160,000 FT <sup>2</sup>                            | PLATTSBURGH, NY  |
| 2001 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 400,000 FT <sup>2</sup>                            | CLAREMONT, NH    |
| 2001 | LANDFILL EXPANSION      | 100 MIL HDTPE                        | 500,000 FT <sup>2</sup>                            | WILLIAMSPORT, PA |
| 2002 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 1,800,000 FT <sup>2</sup>                          | WOBURN, MA       |
| 2002 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 450,000 FT <sup>2</sup>                            | AYER, MA         |
| 2002 | LANDFILL CLOSURE        | 40 MIL LLDTPPE                       | 200,000 FT <sup>2</sup>                            | PLYMOUTH, NH     |
| 2002 | WWTP LAGOON             | 40 MIL HDTPE                         | 120,000 FT <sup>2</sup>                            | BRENTWOOD, NH    |
| 2003 | LANDFILL CLOSURE        | 40 MIL LLDTPPE<br>60 MIL HDPE (COND) | 500,000 FT <sup>2</sup><br>100,000 FT <sup>2</sup> | JAMESTOWN, NY    |
| 2003 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 100,000 FT <sup>2</sup>                            | FITCHBURG, MA    |
| 2003 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 400,000 FT <sup>2</sup>                            | BROCKTON, MA     |
| 2003 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 300,000 FT <sup>2</sup>                            | NASHUA, NH       |
| 2003 | LANDFILL CLOSURE (PH 1) | 40 MIL HDTPE                         | 350,000 FT <sup>2</sup>                            | READING, MA      |
| 2004 | LANDFILL CLOSURE (PH 2) | 40 MIL HDTPE                         | 800,000 FT <sup>2</sup>                            | READING, MA      |
| 2004 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 650,000 FT <sup>2</sup>                            | LEBANON, NH      |
| 2004 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 1,150,000 FT <sup>2</sup>                          | STANLEY, NY      |
| 2005 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 400,000 FT <sup>2</sup>                            | SOUTHBRIDGE, MA  |
| 2005 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 700,000 FT <sup>2</sup>                            | NEWPORT, VT      |
| 2005 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 700,000 FT <sup>2</sup>                            | ORLEANS, MA      |
| 2005 | LANDFILL CLOSURE        | 40 MIL LLDTPPE                       | 300,000 FT <sup>2</sup>                            | WELLFLEET, MA    |
| 2006 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 500,000 FT <sup>2</sup>                            | PLATTSBURGH, NY  |
| 2006 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 350,000 FT <sup>2</sup>                            | BETHLEHEM, NH    |

|      |                                 |                |                           |                 |
|------|---------------------------------|----------------|---------------------------|-----------------|
| 2006 | LANDFILL CLOSURE                | 40 MIL HDTPE   | 220,000 FT <sup>2</sup>   | STOUGHTON, MA   |
| 2007 | LANDFILL CLOSURE                | 40 MIL LLDTPPE | 250,000 FT <sup>2</sup>   | AUBURN, NY      |
| 2007 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 400,000 FT <sup>2</sup>   | SOUTHBRIDGE, MA |
| 2007 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 800,000 FT <sup>2</sup>   | STANLEY, NY     |
| 2007 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 650,000 FT <sup>2</sup>   | NEWPORT, VT     |
| 2007 | LANDFILL CLOSURE                | 40 MIL HDTPE   | 300,000 FT <sup>2</sup>   | COLEBROOK, NH   |
| 2008 | LANDFILL CLOSURE                | 40 MIL HDTPE   | 750,000 FT <sup>2</sup>   | HARDWICK, MA    |
| 2008 | LANDFILL CLOSURE                | 40 MIL LLDTPPE | 750,000 FT <sup>2</sup>   | FORT DRUM, NY   |
| 2008 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 500,000 FT <sup>2</sup>   | CONSTABLE, NY   |
| 2008 | LANDFILL CLOSURE                | 40 MIL HDTPE   | 450,000 FT <sup>2</sup>   | CHARLTON, MA    |
| 2009 | LANDFILL CLOSURE                | 40 MIL HDTPE   | 400,000 FT <sup>2</sup>   | COLEBROOK, NH   |
| 2009 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 240,000 FT <sup>2</sup>   | SOUTHBRIDGE, MA |
| 2009 | LANDFILL CLOSURE<br>(TEMPORARY) | 30 MIL HDPE    | 480,000 FT <sup>2</sup>   | BOURNE, MA      |
| 2010 | LANDFILL CLOSURE                | 40 MIL LLDTPPE | 1,300,000 FT <sup>2</sup> | PLATTSBURGH, NY |
| 2010 | LANDFILL CLOSURE                | 40 MIL HDTPE   | 550,000 FT <sup>2</sup>   | WORCESTER, MA   |
| 2010 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 700,000 FT <sup>2</sup>   | PLATTSBURGH, NY |
| 2010 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 300,000 FT <sup>2</sup>   | NEWPORT, VT     |
| 2010 | LANDFILL CLOSURE                | 40 MIL HDTPE   | 230,000 FT <sup>2</sup>   | PLATTSBURGH, NY |
| 2011 | LANDFILL CLOSURE                | 40 MIL LLDTPPE | 450,000 FT <sup>2</sup>   | PLATTSBURGH, NY |
| 2011 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 400,000 FT <sup>2</sup>   | NEWPORT, VT     |
| 2011 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 100,000 FT <sup>2</sup>   | FLORENCE, VT    |
| 2011 | MISC PONDS                      | 60 MIL HDTPE   | 500,000 FT <sup>2</sup>   | EMPORIUM, PA    |
|      |                                 |                |                           |                 |
| 2010 | LANDFILL CLOSURE                | 40 MIL HDTPE   | 230,000 FT <sup>2</sup>   | PLATTSBURGH, NY |

# terrafix<sup>®</sup>

## environmental U.S.A. inc.

P.O. Box 367, 34 Court Street Auburn, Maine 04212 U.S.A. Tel: (207) 786-6808 Fax: (207) 786-6835

### ***RUSSELL JACKSON ~ SUPERVISOR/MASTER SEAMER*** *INSTALLATION REFERENCES*

Russell previously worked for New England Liners Inc.

| YEAR | PROJECT                 | PRODUCT                    | QUANTITY                                         | LOCATION        |
|------|-------------------------|----------------------------|--------------------------------------------------|-----------------|
| 2004 | LANDFILL CLOSURE (PH 2) | 40 MIL HDTPE               | 800,000 FT <sup>2</sup>                          | READING, MA     |
| 2004 | LANDFILL EXPANSION      | 60 MIL HDTPE               | 650,000 FT <sup>2</sup>                          | LEBANON, NH     |
| 2004 | LANDFILL CLOSURE        | 40 MIL LLDTPPE             | 500,000 FT <sup>2</sup>                          | NEW BEDFORD, MA |
| 2004 | LANDFILL CLOSURE        | 40 MIL HDTPE               | 360,000 FT <sup>2</sup>                          | CARVER, MA      |
| 2004 | LANDFILL CLOSURE        | 40 MIL LLDTPPE             | 850,000 FT <sup>2</sup>                          | CHEEKTOWAGA, NY |
| 2004 | LANDFILL EXPANSION      | 60 MIL HDTPE               | 1,150,000 FT <sup>2</sup>                        | SENECA, NY      |
| 2005 | LANDFILL EXPANSION      | 60 MIL HDTPE               | 1,200,000 FT <sup>2</sup>                        | SENECA, NY      |
| 2005 | POND                    | 40 MIL HDTPE               | 120,000 FT <sup>2</sup>                          | HOLLIS, ME      |
| 2005 | LANDFILL EXPANSION      | 60 MIL HDTPE               | 200,000 FT <sup>2</sup>                          | SPRINGFIELD, MA |
| 2006 | LANDFILL CLOSURE        | 40 MIL HDTPE               | 700,000 FT <sup>2</sup>                          | BROCKTON, MA    |
| 2006 | LANDFILL EXPANSION      | 80 MIL HDTPE               | 150,000 FT <sup>2</sup>                          | FRANKLIN, NH    |
| 2006 | LANDFILL CLOSURE        | 40 MIL HDTPE               | 400,000 FT <sup>2</sup>                          | SOUTHBRIDGE, MA |
| 2006 | LANDFILL EXPANSION      | 60 MIL HDTPE               | 600,000 FT <sup>2</sup>                          | ELMIRA, NY      |
| 2006 | LANDFILL CLOSURE        | 40 MIL HDTPE               | 120,000 FT <sup>2</sup>                          | MILLVILLE, MA   |
| 2007 | LANDFILL EXPANSION      | 60 MIL HDTPE               | 280,000 FT <sup>2</sup>                          | CAMPBELL, NY    |
| 2007 | LANDFILL EXPANSION      | 60 MIL HDTPE               | 850,000 FT <sup>2</sup>                          | ANGELICA, NY    |
| 2007 | LANDFILL EXPANSION      | 60 MIL HDPE<br>80 MIL HDPE | 60,000 FT <sup>2</sup><br>60,000 FT <sup>2</sup> | NANTUCKET, MA   |
| 2008 | LANDFILL EXPANSION      | 60 MIL HDTPE               | 230,000 FT <sup>2</sup>                          | BETHLEHEM, NH   |
| 2008 | LANDFILL EXPANSION      | 60 MIL HDTPE               | 1,300,000 FT <sup>2</sup>                        | NASHUA, NH      |
| 2009 | LANDFILL EXPANSION      | 60 MIL HDTPE               | 700,000 FT <sup>2</sup>                          | SENECA, NY      |
| 2010 | LANDFILL EXPANSION      | 60 MIL HDTPE               | 530,000 FT <sup>2</sup>                          | SENECA, NY      |
| 2010 | LANDFILL EXPANSION      | 60 MIL HDTPE               | 420,000 FT <sup>2</sup>                          | ELMIRA, NY      |
| 2010 | LANDFILL CLOSURE        | 40 MIL HDTPE               | 400,000 FT <sup>2</sup>                          | SOUTHBRIDGE, MA |
| 2010 | MISC PONDS              | 40 MIL LLDPE               | 2,200,000 FT <sup>2</sup>                        | WASHINGTON, PA  |



|      |                    |              |                         |                 |
|------|--------------------|--------------|-------------------------|-----------------|
| 2011 | LANDFILL EXPANSION | 60 MIL HDTPE | 550,000 FT <sup>2</sup> | ANGELICA, NY    |
| 2011 | LANDFILL EXPANSION | 60 MIL HDTPE | 400,000 FT <sup>2</sup> | CAMPBELL, NY    |
| 2011 | LANDFILL EXPANSION | 60 MIL HDTPE | 220,000 FT <sup>2</sup> | MT JEWETT, PA   |
| 2011 | LANDFILL EXPANSION | 60 MIL HDTPE | 200,000 FT <sup>2</sup> | SOUTHBRIDGE, MA |
| 2011 | MISC PONDS         | 40 MIL LLDPE | 600,000 FT <sup>2</sup> | WASHINGTON, PA  |
| 2011 | MISC PONDS         | 40 MIL HDTPE | 400,000 FT <sup>2</sup> | KANE, PA        |

# **terrafix<sup>®</sup>**

## **environmental U.S.A. inc.**

P.O. Box 367, 34 Court Street Auburn, Maine 04212 U.S.A. Tel: (207) 786-6808 Fax: (207) 786-6835

### ***GLEN KARLSEN ~ SUPERVISOR/MASTER SEAMER***

#### ***INSTALLATION REFERENCES***

Glen previously worked for New Lining Solutions Inc.

| <b>YEAR</b> | <b>PROJECT</b>     | <b>PRODUCT</b> | <b>QUANTITY</b>           | <b>LOCATION</b>     |
|-------------|--------------------|----------------|---------------------------|---------------------|
| 2007        | LANDFILL EXPANSION | 60 MIL HDTPE   | 650,000 FT <sup>2</sup>   | NEWPORT, VT         |
| 2007        | LANDFILL CLOSURE   | 40 MIL LLDTPPE | 220,000 FT <sup>2</sup>   | WATERTOWN, NY       |
| 2007        | LANDFILL CLOSURE   | 40 MIL HDTPE   | 500,000 FT <sup>2</sup>   | HARDWICK, MA        |
| 2007        | LANDFILL CLOSURE   | 40 MIL HDTPE   | 300,000 FT <sup>2</sup>   | OLD TOWN, ME        |
| 2008        | LANDFILL EXPANSION | 60 MIL HDTPE   | 250,000 FT <sup>2</sup>   | CAMPBELL, NY        |
| 2008        | LANDFILL EXPANSION | 60 MIL HDTPE   | 200,000 FT <sup>2</sup>   | ANGELICA, NY        |
| 2008        | LANDFILL CLOSURE   | 40 MIL HDTPE   | 250,000 FT <sup>2</sup>   | COLEBROOK, NH       |
| 2008        | LANDFILL EXPANSION | 60 MIL HDTPE   | 450,000 FT <sup>2</sup>   | BOURNE, MA          |
| 2009        | LANDFILL CLOSURE   | 40 MIL LLDTPPE | 700,000 FT <sup>2</sup>   | CAMPBELL, NY        |
| 2009        | LANDFILL EXPANSION | 60 MIL HDTPE   | 550,000 FT <sup>2</sup>   | NEWPORT, VT         |
| 2010        | LANDFILL EXPANSION | 60 MIL HDTPE   | 200,000 FT <sup>2</sup>   | ANGELICA, NY        |
| 2010        | LANDFILL CLOSURE   | 40 MIL HDTPE   | 200,000 FT <sup>2</sup>   | STOUGHTON, MA       |
| 2010        | MISC PONDS         | 40 MIL LLDPE   | 800,000 FT <sup>2</sup>   | WASHINGTON, PA      |
| 2010        | MISC PONDS         | 40 MIL HDPE    | 1,500,000 FT <sup>2</sup> | WILLIAMSPORT, PA    |
| 2011        | LANDFILL CLOSURE   | 60 MIL LLDTPPE | 1,000,000 FT <sup>2</sup> | SOUTH STRAFFORD, VT |
| 2011        | MISC PONDS         | 40 MIL LLDPE   | 600,000 FT <sup>2</sup>   | WASHINGTON, PA      |
| 2011        | MISC PONDS         | 40 MIL HDTPE   | 400,000 FT <sup>2</sup>   | KANE, PA            |

# terrafix<sup>®</sup>

## environmental U.S.A. inc.

P.O. Box 367, 34 Court Street Auburn, Maine 04212 U.S.A. Tel: (207) 786-6808 Fax: (207) 786-6835

### INSTALLED PROJECTS REFERENCE LIST

|                       |                           |                  |             |
|-----------------------|---------------------------|------------------|-------------|
| <b>Project Title:</b> | <b>Waste USA - Cell 3</b> |                  |             |
| <b>Date:</b>          | Summer 1995               | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>        | Casella Waste Management  | 80 mil HDPE      | 250,000 ft2 |
| <b>Location:</b>      | Newport, VT               | 60 mil HDPE      | 250,000 ft2 |
| <b>Consulting:</b>    | Dufresne Henry Eng.       |                  |             |

|                       |                                   |                  |             |
|-----------------------|-----------------------------------|------------------|-------------|
| <b>Project Title:</b> | <b>Brunswick Landfill Closure</b> |                  |             |
| <b>Date:</b>          | Summer 1995                       | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>        | Ray Labbe & Sons Inc.             | 40 mil HDPE      | 162,000 ft2 |
| <b>Location:</b>      | Brunswick, ME                     |                  |             |
| <b>Consulting:</b>    | Woodard & Curran Inc.             |                  |             |

|                       |                                    |                  |             |
|-----------------------|------------------------------------|------------------|-------------|
| <b>Project Title:</b> | <b>Bethlehem Landfill - Cell 3</b> |                  |             |
| <b>Date:</b>          | Fall/Winter 1995                   | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>        | Casella Waste Management           | 60 mil HDPE      | 432,000 ft2 |
| <b>Location:</b>      | Bethlehem, NH                      |                  |             |
| <b>Consulting:</b>    | Sanborn, Head & Associates         |                  |             |

|                       |                           |                  |             |
|-----------------------|---------------------------|------------------|-------------|
| <b>Project Title:</b> | <b>Waste USA - Cell 4</b> |                  |             |
| <b>Date:</b>          | Summer 1996               | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>        | Casella Waste Management  | 80 mil HDPE      | 260,000 ft2 |
| <b>Location:</b>      | Newport, VT               | 80 mil HDTPE     | 140,000 ft2 |
| <b>Consulting:</b>    | Dufresne Henry Eng.       | 60 mil HDPE      | 270,000 ft2 |
|                       |                           | 60 mil HDTPE     | 140,000 ft2 |
|                       |                           | Geocomposite     | 140,000 ft2 |
|                       |                           | GCL              | 400,000 ft2 |

|                       |                                |                  |             |
|-----------------------|--------------------------------|------------------|-------------|
| <b>Project Title:</b> | <b>Warren Landfill Closure</b> |                  |             |
| <b>Date:</b>          | Spring 1996                    | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>        | Ferraiolo Construction         | 40 mil LLDTPPE   | 175,000 ft2 |
| <b>Location:</b>      | Warren, ME                     | Geocomposite     | 175,000 ft2 |
| <b>Consulting:</b>    | Woodard & Curran Inc.          |                  |             |

|                       |                                  |                  |             |
|-----------------------|----------------------------------|------------------|-------------|
| <b>Project Title:</b> | <b>Yarmouth Landfill Closure</b> |                  |             |
| <b>Date:</b>          | Fall 1996                        | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>        | Robert B. Our Co.                | 40 mil HDPE      | 520,000 ft2 |
| <b>Location:</b>      | Yarmouth, MA                     |                  |             |
| <b>Consulting:</b>    | Camp Dresser & McKee             |                  |             |

|                       |                                  |                  |             |
|-----------------------|----------------------------------|------------------|-------------|
| <b>Project Title:</b> | <b>Rehoboth Landfill Closure</b> |                  |             |
| <b>Date:</b>          | Fall 1996                        | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>        | C. Spirito Inc.                  | 40 mil HDPE      | 600,000 ft2 |
| <b>Location:</b>      | Rehoboth, MA                     | Geocomposite     | 600,000 ft2 |
| <b>Consulting:</b>    | McGuire Group                    |                  |             |

|                       |                                               |                  |               |
|-----------------------|-----------------------------------------------|------------------|---------------|
| <b>Project Title:</b> | <b><i>Cohasset Landfill Closure</i></b>       |                  |               |
| <b>Date:</b>          | Fall 1996                                     | <b>Materials</b> | <b>Area</b>   |
| <b>Client:</b>        | C. Spirito Inc.                               | 40 mil HDTPE     | 324,000 ft2   |
| <b>Location:</b>      | Cohasset, MA                                  |                  |               |
| <b>Consulting:</b>    | Camp Dresser & McKee                          |                  |               |
| <b>Project Title:</b> | <b><i>Bethlehem Landfill Closure</i></b>      |                  |               |
| <b>Date:</b>          | September 1997                                | <b>Materials</b> | <b>Area</b>   |
| <b>Client:</b>        | Casella Construction Inc.                     | 40 mil LLDTPPE   | 750,000 ft2   |
| <b>Location:</b>      | Bethlehem, NH                                 | Geocomposite     | 750,000 ft2   |
| <b>Consulting:</b>    | Sanborn, Head & Associates                    |                  |               |
| <b>Project Title:</b> | <b><i>Clinton County Landfill Closure</i></b> |                  |               |
| <b>Date:</b>          | May - August 1997                             | <b>Materials</b> | <b>Area</b>   |
| <b>Contractor:</b>    | New England Waste Services of New York        | 40 mil PVC       | 1,500,000 ft2 |
| <b>Location:</b>      | Plattsburgh, NY                               | Geotextile       | 1,500,000 ft2 |
| <b>Consulting:</b>    | Spectra Engineering                           |                  |               |
| <b>Project Title:</b> | <b><i>Bridgewater Landfill Closure</i></b>    |                  |               |
| <b>Date:</b>          | September 1997                                | <b>Materials</b> | <b>Area</b>   |
| <b>Client:</b>        | R.Bates & Sons Inc.                           | 40 mil HDTPE     | 455,000 ft2   |
| <b>Location:</b>      | Bridgewater, MA                               |                  |               |
| <b>Consulting:</b>    | C.G.K. Inc.                                   |                  |               |
| <b>Project Title:</b> | <b><i>Lycoming County Landfill Part I</i></b> |                  |               |
| <b>Date:</b>          | October/November 1997                         | <b>Materials</b> | <b>Area</b>   |
| <b>Client:</b>        | Milestone Materials Inc.                      | 100 mil HDPE     | 400,000 ft2   |
| <b>Location:</b>      | Williamsport, PA                              | Geotextile       | 600,000 ft2   |
| <b>Consulting:</b>    | Cummings & Smith Inc.                         | GCL              | 200,000 ft2   |
|                       |                                               | Geonet           | 800,000 ft2   |
| <b>Project Title:</b> | <b><i>Oak Bluffs Landfill Closure</i></b>     |                  |               |
| <b>Date:</b>          | April 1998                                    | <b>Materials</b> | <b>Area</b>   |
| <b>Client:</b>        | Robert B. Our Inc.                            | 40 mil HDTPE     | 360,000 ft2   |
| <b>Location:</b>      | Oak Bluffs, MA                                |                  |               |
| <b>Consulting:</b>    | Earth Tech Inc.                               |                  |               |
| <b>Project Title:</b> | <b><i>Lycoming County Landfill Part 2</i></b> |                  |               |
| <b>Date:</b>          | May 1998                                      | <b>Materials</b> | <b>Area</b>   |
| <b>Client:</b>        | Milestone Materials Inc.                      | 100 mil HDPE     | 360,000 ft2   |
| <b>Location:</b>      | Williamsport, PA                              | Geotextile       | 540,000 ft2   |
| <b>Consulting:</b>    | Cummings & Smith Inc.                         | GCL              | 180,000 ft2   |
|                       |                                               | Geonet           | 720,000 ft2   |
| <b>Project Title:</b> | <b><i>Derry Landfill Closure</i></b>          |                  |               |
| <b>Date:</b>          | June/July 1998                                | <b>Materials</b> | <b>Area</b>   |
| <b>Client:</b>        | Town of Derry                                 | 40 mil HDTPE     | 350,000 ft2   |
| <b>Location:</b>      | Derry, NH                                     | Geocomposite     | 350,000 ft2   |
| <b>Consulting:</b>    | Lewis Berger & Assoc.                         |                  |               |
| <b>Project Title:</b> | <b><i>Southbridge Landfill Expansion</i></b>  |                  |               |
| <b>Date:</b>          | July 1998                                     | <b>Materials</b> | <b>Area</b>   |
| <b>Client:</b>        | E, T & L Inc.                                 | 60 mil HDPE      | 160,000 ft2   |
| <b>Location:</b>      | Southbridge, MA                               |                  |               |
| <b>Consulting:</b>    | In House for Owner                            |                  |               |
| <b>Project Title:</b> | <b><i>Attleboro Landfill Expansion</i></b>    |                  |               |
| <b>Date:</b>          | August 1998                                   | <b>Materials</b> | <b>Area</b>   |
| <b>Client:</b>        | Town of Attleboro                             | 60 mil HDPE      | 150,000 ft2   |

**Location:** Attleboro, MA  
**Consulting:** Camp Dresser & McKee

---

***Project Title:*** ***Waste USA - Phase 3 Cell 1***

|                    |                            |                  |             |
|--------------------|----------------------------|------------------|-------------|
| <b>Date:</b>       | September 1998             | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Waste Management   | 80 mil HDPE      | 560,000 ft2 |
| <b>Location:</b>   | Newport, VT                | Geocomposite     | 400,000 ft2 |
| <b>Consulting:</b> | Sanborn, Head & Associates | GCL              | 280,000 ft2 |

---

---

***Project Title:*** ***Brunswick Landfill Expansion***

|                    |                              |                  |             |
|--------------------|------------------------------|------------------|-------------|
| <b>Date:</b>       | September/October 1998       | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Harry C. Crooker & Sons Inc. | 80 mil HDTPE     | 500,000 ft2 |
| <b>Location:</b>   | Brunswick, ME                | Geocomposite     | 250,000 ft2 |
| <b>Consulting:</b> | Woodard & Curran Inc.        | GCL              | 250,000 ft2 |
|                    |                              | Geotextile       | 250,000 ft2 |

---

---

***Project Title:*** ***Bethlehem Landfill Expansion Stage 2 Phase 2***

|                    |                            |                  |             |
|--------------------|----------------------------|------------------|-------------|
| <b>Date:</b>       | October 1998               | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Waste Management   | 60 mil HDTPE     | 340,000 ft2 |
| <b>Location:</b>   | Bethlehem, NH              | Geocomposite     | 340,000 ft2 |
| <b>Consulting:</b> | Sanborn, Head & Associates |                  |             |

---

---

***Project Title:*** ***Clinton County Landfill Expansion - Field 8***

|                    |                       |                  |             |
|--------------------|-----------------------|------------------|-------------|
| <b>Date:</b>       | October 1998          | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | C.C.S.W.A.            | 100 mil HDPE     | 280,000 ft2 |
| <b>Location:</b>   | McElhattan, PA        | Geonet           | 320,000 ft2 |
| <b>Consulting:</b> | Cummings & Smith Inc. | GCL              | 50,000 ft2  |
|                    |                       | Geotextile       | 150,000 ft2 |

---

---

***Project Title:*** ***Union Camp Chemicals Pond #1***

|                    |                    |                  |             |
|--------------------|--------------------|------------------|-------------|
| <b>Date:</b>       | October 1998       | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Chapman Excavating | 60 mil HDTPE     | 320,000 ft2 |
| <b>Location:</b>   | Dover, OH          | Geocomposite     | 160,000 ft2 |
| <b>Consulting:</b> | Chester Engineers  | GCL              | 160,000 ft2 |

---

---

***Project Title:*** ***Wellesley Gateway***

|                    |                            |                  |             |
|--------------------|----------------------------|------------------|-------------|
| <b>Date:</b>       | November 1998              | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Northeast Contractors Inc. | 40 mil HDPE      | 90,000 ft2  |
| <b>Location:</b>   | Wellesley, MA              |                  |             |
| <b>Consulting:</b> | GZA Inc.                   |                  |             |

---

---

***Project Title:*** ***Aquinnah Landfill Closure***

|                    |                      |                  |             |
|--------------------|----------------------|------------------|-------------|
| <b>Date:</b>       | December 1998        | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Lawrence Lynch Inc.  | 40 mil HDTPE     | 60,000 ft2  |
| <b>Location:</b>   | Aquinnah, MA         |                  |             |
| <b>Consulting:</b> | Decoulos Engineering |                  |             |

---

---

***Project Title:*** ***Sudbury Well #8***

|                    |                                   |                  |             |
|--------------------|-----------------------------------|------------------|-------------|
| <b>Date:</b>       | March 1999                        | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Puma Corp.                        | 60 mil HDTPE     | 10,000 ft2  |
| <b>Location:</b>   | Sudbury, MA                       |                  |             |
| <b>Consulting:</b> | H <sub>2</sub> O Engineering Inc. |                  |             |

---

---

***Project Title:*** ***New York Christian Life Church***

|              |            |                  |             |
|--------------|------------|------------------|-------------|
| <b>Date:</b> | April 1999 | <b>Materials</b> | <b>Area</b> |
|--------------|------------|------------------|-------------|



|                    |                               |                    |            |
|--------------------|-------------------------------|--------------------|------------|
| <b>Client:</b>     | Legacy Construction Inc.      | 80 mil Liquid Boot | 60,000 ft2 |
| <b>Location:</b>   | Brooklyn, NY                  |                    |            |
| <b>Consulting:</b> | SCS Environmental Engineering |                    |            |

***Project Title: Containment Area***

|                    |                          |                  |             |
|--------------------|--------------------------|------------------|-------------|
| <b>Date:</b>       | May 1999                 | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Maine Wood Treaters Inc. | 60 mil HDPE      | 10,000 ft2  |
| <b>Location:</b>   | Mechanic Falls, ME       |                  |             |
| <b>Consulting:</b> | n/a                      |                  |             |

***Project Title: Marlborough Landfill Closure***

|                    |                         |                  |             |
|--------------------|-------------------------|------------------|-------------|
| <b>Date:</b>       | May 1999                | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Town of Marlborough     | 40 mil HDPE      | 33,000 ft2  |
| <b>Location:</b>   | Marlborough, CT         |                  |             |
| <b>Consulting:</b> | S.E.A. Engineering Inc. |                  |             |

***Project Title: Fairhaven Landfill Closure***

|                    |                              |                  |               |
|--------------------|------------------------------|------------------|---------------|
| <b>Date:</b>       | June/July 1999               | <b>Materials</b> | <b>Area</b>   |
| <b>Client:</b>     | Littleton Environmental Inc. | 40 mil HDTPE     | 1,000,000 ft2 |
| <b>Location:</b>   | Fairhaven, MA                |                  |               |
| <b>Consulting:</b> | CGK Engineering Inc.         |                  |               |

***Project Title: Poland High School Pond***

|                    |                                 |                  |             |
|--------------------|---------------------------------|------------------|-------------|
| <b>Date:</b>       | September 1999                  | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | RSL Excavation Inc.             | 40 mil HDPE      | 30,000 ft2  |
| <b>Location:</b>   | Poland, ME                      |                  |             |
| <b>Consulting:</b> | Deluca Hoffman Engineering Inc. |                  |             |

***Project Title: Providence Gas Company***

|                    |                      |                  |             |
|--------------------|----------------------|------------------|-------------|
| <b>Date:</b>       | July 1999            | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | ThermoRetec Inc.     | 40 mil HDPE      | 100,000 ft2 |
| <b>Location:</b>   | Providence, RI       |                  |             |
| <b>Consulting:</b> | ESS Engineering Inc. |                  |             |

***Project Title: Nantucket Compost Plant - Recycle Building***

|                    |                     |                  |             |
|--------------------|---------------------|------------------|-------------|
| <b>Date:</b>       | August 1999         | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Lawrence Lynch Inc. | 60 mil HDPE      | 30,000 ft2  |
| <b>Location:</b>   | Nantucket, MA       |                  |             |
| <b>Consulting:</b> | In House            |                  |             |

***Project Title: Salisbury Landfill Closure***

|                    |                              |                  |             |
|--------------------|------------------------------|------------------|-------------|
| <b>Date:</b>       | September 1999               | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Barletta Heavy Division Inc. | 40 mil HDTPE     | 650,000 ft2 |
| <b>Location:</b>   | Salisbury, MA                |                  |             |
| <b>Consulting:</b> | CDM Engineering Inc.         |                  |             |

***Project Title: Schuyler Falls Landfill Expansion - Cell #5***

|                    |                                     |                  |             |
|--------------------|-------------------------------------|------------------|-------------|
| <b>Date:</b>       | August 1999                         | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Construction Inc.           | 60 mil HDTPE     | 500,000 ft2 |
| <b>Location:</b>   | Plattsburgh, NY                     | Geocomposite     | 250,000 ft2 |
| <b>Consulting:</b> | Barton & Loguidice Engineering Inc. | GCL              | 200,000 ft2 |

***Project Title: Topsfield Landfill Closure***

|                  |                              |                  |             |
|------------------|------------------------------|------------------|-------------|
| <b>Date:</b>     | September/October 1999       | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>   | Barletta Heavy Division Inc. | 40 mil HDTPE     | 500,000 ft2 |
| <b>Location:</b> | Topsfield, MA                | 40 mil HDPE      | 700,000 ft2 |

**Consulting:** Weston & Sampson Engineering Inc.

---

**Project Title:** *Waste USA - Phase 3 - Cell 1 - Subcell 3*

|                    |                            |                  |             |
|--------------------|----------------------------|------------------|-------------|
| <b>Date:</b>       | September/October 1999     | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Waste Management   | 60 mil HDTPE     | 450,000 ft2 |
| <b>Location:</b>   | Newport, VT                | Geocomposite     | 340,000 ft2 |
| <b>Consulting:</b> | Sanborn, Head & Associates | GCL              | 210,000 ft2 |

---

---

**Project Title:** *Southbridge Landfill Expansion Cell #5*

|                    |                           |                     |             |
|--------------------|---------------------------|---------------------|-------------|
| <b>Date:</b>       | November 1999             | <b>Materials</b>    | <b>Area</b> |
| <b>Client:</b>     | Wood Recycling Inc.       | 60 mil HDPE (white) | 120,000 ft2 |
| <b>Location:</b>   | Southbridge, MA           |                     |             |
| <b>Consulting:</b> | Lynfield Engineering Inc. |                     |             |

---

---

**Project Title:** *Union Camp Chemicals Pond #2*

|                    |                    |                  |             |
|--------------------|--------------------|------------------|-------------|
| <b>Date:</b>       | October 1999       | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Chapman Excavating | 60 mil HDTPE     | 320,000 ft2 |
| <b>Location:</b>   | Dover, OH          | Geocomposite     | 160,000 ft2 |
| <b>Consulting:</b> | Chester Engineers  | GCL              | 160,000 ft2 |

---

---

**Project Title:** *Tisbury Landfill Closure*

|                    |                      |                  |             |
|--------------------|----------------------|------------------|-------------|
| <b>Date:</b>       | November 1999        | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | UEL Contractors Inc. | 40 mil LLDTPE    | 300,000 ft2 |
| <b>Location:</b>   | Tisbury, MA          |                  |             |
| <b>Consulting:</b> | Earth Tech Inc.      |                  |             |

---

---

**Project Title:** *Nantucket Compost Plant - Phase 1 Landfill Closure*

|                    |                          |                  |             |
|--------------------|--------------------------|------------------|-------------|
| <b>Date:</b>       | December 1999            | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Waste Options Inc.       | 40 mil HDTPE     | 450,000 ft2 |
| <b>Location:</b>   | Nantucket, MA            |                  |             |
| <b>Consulting:</b> | Secor International Inc. |                  |             |

---

---

**Project Title:** *Poland Springs Pond*

|                    |                              |                  |             |
|--------------------|------------------------------|------------------|-------------|
| <b>Date:</b>       | April 2000                   | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Shaw Brothers Inc.           | 40 mil HDPE      | 120,000 ft2 |
| <b>Location:</b>   | Hollis, ME                   |                  |             |
| <b>Consulting:</b> | Wright Pierce Engineers Inc. |                  |             |

---

---

**Project Title:** *Southbridge Landfill Expansion Cell #6*

|                    |                           |                     |             |
|--------------------|---------------------------|---------------------|-------------|
| <b>Date:</b>       | June 2000                 | <b>Materials</b>    | <b>Area</b> |
| <b>Client:</b>     | Wood Recycling Inc.       | 60 mil HDPE (white) | 150,000 ft2 |
| <b>Location:</b>   | Southbridge, MA           |                     |             |
| <b>Consulting:</b> | Lynfield Engineering Inc. |                     |             |

---

---

**Project Title:** *Schuyler Falls Landfill Expansion - East Side Development*

|                    |                                     |                  |               |
|--------------------|-------------------------------------|------------------|---------------|
| <b>Date:</b>       | June - September 2000               | <b>Materials</b> | <b>Area</b>   |
| <b>Client:</b>     | Casella Construction Inc.           | 60 mil HDTPE     | 1,000,000 ft2 |
| <b>Location:</b>   | Plattsburgh, NY                     | Geocomposite     | 1,000,000 ft2 |
| <b>Consulting:</b> | Barton & Loguidice Engineering Inc. | GCL              | 450,000 ft2   |

---

---

**Project Title:** *Nantucket Compost Plant - Phase 2 Landfill Closure*

|                    |                          |                  |             |
|--------------------|--------------------------|------------------|-------------|
| <b>Date:</b>       | September 2000           | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Waste Options Inc.       | 40 mil HDTPE     | 400,000 ft2 |
| <b>Location:</b>   | Nantucket, MA            |                  |             |
| <b>Consulting:</b> | Secor International Inc. |                  |             |

---

**Project Title:** *Clinton County Landfill Expansion - Field 11 & 12*

|                    |                          |                  |             |
|--------------------|--------------------------|------------------|-------------|
| <b>Date:</b>       | August 2000              | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | C.C.S.W.A.               | 100 mil HDPE     | 450,000 ft2 |
| <b>Location:</b>   | McElhattan, PA           | Geonet           | 650,000 ft2 |
| <b>Consulting:</b> | Blazosky Associates Inc. | GCL              | 130,000 ft2 |
|                    |                          | Geotextile       | 30,000 ft2  |

---

---

**Project Title:** *Buffalo Niagara Airport*

|                    |                           |                  |             |
|--------------------|---------------------------|------------------|-------------|
| <b>Date:</b>       | July 2000                 | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Dipizio Construction Inc. | 60 mil HDTPE     | 120,000 ft2 |
| <b>Location:</b>   | Buffalo, NY               | Geocomposite     | 60,000 ft2  |
| <b>Consulting:</b> | TVGA Engineering Inc.     |                  |             |

---

---

**Project Title:** *Bourne Landfill Expansion - Phase 3*

|                    |                        |                  |             |
|--------------------|------------------------|------------------|-------------|
| <b>Date:</b>       | October 2000           | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | R.Bates & Sons Inc.    | 60 mil HDTPE     | 800,000 ft2 |
| <b>Location:</b>   | Bourne, MA             | Geocomposite     | 400,000 ft2 |
| <b>Consulting:</b> | CGK Environmental Inc. | GCL              | 660,000 ft2 |

---

---

**Project Title:** *Goffstown Landfill Closure*

|                    |                       |                  |             |
|--------------------|-----------------------|------------------|-------------|
| <b>Date:</b>       | June/July 2001        | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Thibeault Corporation | 40 mil HDTPE     | 800,000 ft2 |
| <b>Location:</b>   | Goffstown, NH         |                  |             |
| <b>Consulting:</b> | GeoInsight Inc.       |                  |             |

---

---

**Project Title:** *Sawyer Landfill Expansion - Phase 6 (Secure 3)*

|                    |                              |                  |               |
|--------------------|------------------------------|------------------|---------------|
| <b>Date:</b>       | June/July/August 2001        | <b>Materials</b> | <b>Area</b>   |
| <b>Client:</b>     | Sargent & Sargent Inc.       | 80 mil HDTPE     | 1,000,000 ft2 |
| <b>Location:</b>   | Bangor, ME                   | Geocomposite     | 1,000,000 ft2 |
| <b>Consulting:</b> | Sevee & Maher Engineers Inc. | GCL              | 250,000 ft2   |

---

---

**Project Title:** *Newbury Landfill Closure*

|                    |                                |                  |             |
|--------------------|--------------------------------|------------------|-------------|
| <b>Date:</b>       | August 2001                    | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Construction Inc.      | 40 mil LLDTPE    | 350,000 ft2 |
| <b>Location:</b>   | Newbury, VT                    |                  |             |
| <b>Consulting:</b> | O'Leary-Burke Civil Associates |                  |             |

---

---

**Project Title:** *CV Landfill Closure*

|                    |                            |                  |             |
|--------------------|----------------------------|------------------|-------------|
| <b>Date:</b>       | August/September 2001      | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Construction Inc.  | 40 mil LLDTPE    | 700,000 ft2 |
| <b>Location:</b>   | Montpelier, VT             | Geocomposite     | 700,000 ft2 |
| <b>Consulting:</b> | Sanborn, Head & Associates |                  |             |

---

---

**Project Title:** *Newport-Ash Landfill Closure*

|                    |                           |                  |             |
|--------------------|---------------------------|------------------|-------------|
| <b>Date:</b>       | September/October 2001    | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Construction Inc. | 40 mil LLDTPE    | 200,000 ft2 |
| <b>Location:</b>   | Newport, NH               | Geocomposite     | 200,000 ft2 |
| <b>Consulting:</b> | Nobis Engineering Inc.    |                  |             |

---

---

**Project Title:** *Claremont Landfill Closure*

|                    |                            |                  |               |
|--------------------|----------------------------|------------------|---------------|
| <b>Date:</b>       | September/October 2001     | <b>Materials</b> | <b>Area</b>   |
| <b>Client:</b>     | Casella Construction Inc.  | 40 mil HDTPE     | 1,000,000 ft2 |
| <b>Location:</b>   | Claremont, NH              | Geocomposite     | 150,000 ft2   |
| <b>Consulting:</b> | Dufresne-Henry Engineering |                  |               |

---

---

**Project Title:** *Lycoming County Landfill - Field 9***Date:** November/December 2001**Client:** HRI Inc.**Location:** Williamsport, PA**Consulting:** Cummings & Smith Inc.**Materials**

100 mil HDPE

Geotextile

GCL

Geonet

**Area**

1,000,000 ft2

1,600,000 ft2

550,000 ft2

2,200,000 ft2

---

**Project Title:** *Woburn Landfill Closure***Date:** July/August/September/October 2002**Client:** Casella Waste Inc.**Location:** Woburn, MA**Consulting:** Lynnfield Engineering**Materials**

40 mil HDTPE

Geocomposite

Geotextile

**Area**

1,800,000 ft2

1,400,000 ft2

400,000 ft2

---

**Project Title:** *Nantucket Compost Plant - Phase 2 Expansion***Date:** October 2003**Client:** Waste Options Inc.**Location:** Nantucket, MA**Consulting:** In-house**Materials**

60 mil HDPE

80 mil HDPE

Geocomposite

GCL

**Area**

100,000 ft2

100,000 ft2

100,000 ft2

200,000 ft2

---

**Project Title:** *Ayer Landfill Closure***Date:** August 2002**Client:** Littleton Environmental Inc.**Location:** Ayer, MA**Consulting:** Tata & Howard Engineering Inc.**Materials**

40 mil HDTPE

**Area**450,000 ft2

---

**Project Title:** *Moretown Landfill Closure***Date:** October 2002**Client:** EE Packard Enterprises**Location:** Moretown, VT**Consulting:** Tighe & Bond Engineering**Materials**

40 mil HDTPE

GCL

**Area**

150,000 ft2

140,000 ft2

---

**Project Title:** *Hakes Landfill Expansion***Date:** August 2002**Client:** Hyland Landfill Facility Inc.**Location:** Campbell, NY**Consulting:** McMahon & Mann Engineering Inc.**Materials**

60 mil HDPE

Geotextile

**Area**

200,000 ft2

200,000 ft2

---

**Project Title:** *Plymouth Landfill Closure***Date:** August 2002**Client:** Scott Construction Inc.**Location:** Plymouth, NH**Consulting:** Nobis Engineering**Materials**

40 mil LLDTPPE

Geocomposite

**Area**

200,000 ft2

200,000 ft2

---

**Project Title:** *Rockingham WWTP***Date:** October 2002**Client:** Scott Construction Inc.**Location:** Brentwood, NH**Consulting:** Jaworski Engineering**Materials**

40 mil HDTPE

**Area**120,000 ft2

---

**Project Title:** *SD Warren/Sappi Paper Landfill Expansion - Cell 9***Date:** September 2002**Client:** Sargent & Sargent Inc.**Location:** Skowhegan, ME**Materials**

80 mil HDTPE

Geocomposite

**Area**

250,000 ft2

250,000 ft2

|                    |                              |     |             |
|--------------------|------------------------------|-----|-------------|
| <b>Consulting:</b> | Sevee & Maher Engineers Inc. | GCL | 250,000 ft2 |
|--------------------|------------------------------|-----|-------------|

---

**Project Title:** *Southbridge Landfill Expansion*

|                    |                           |                      |             |
|--------------------|---------------------------|----------------------|-------------|
| <b>Date:</b>       | July/August 2002          | <b>Materials</b>     | <b>Area</b> |
| <b>Client:</b>     | Wood Recycling Inc.       | 60 mil HDTPE (white) | 600,000 ft2 |
| <b>Location:</b>   | Southbridge, MA           | Geocomposite         | 600,000 ft2 |
| <b>Consulting:</b> | Lynfield Engineering Inc. | GCL                  | 300,000 ft2 |

---

**Project Title:** *Chautauqua County Landfill Closure*

|                    |                               |                          |               |
|--------------------|-------------------------------|--------------------------|---------------|
| <b>Date:</b>       | July/August 2003              | <b>Materials</b>         | <b>Area</b>   |
| <b>Client:</b>     | Ontario Specialty Contracting | 40 mil LLDTPE            | 500,000 ft2   |
| <b>Location:</b>   | Jamestown, NY                 | Geocomposite             | 1,000,000 ft2 |
| <b>Consulting:</b> | In-house                      | GCL                      | 150,000 ft2   |
|                    |                               | 60 mil HDPE (white/cond) | 100,000 ft2   |
|                    |                               | Geonet                   | 100,000 ft2   |

---

**Project Title:** *Schuyler Falls Landfill Expansion - Overlay Development*

|                    |                                     |                  |             |
|--------------------|-------------------------------------|------------------|-------------|
| <b>Date:</b>       | June - September 2003               | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Construction Inc.           | 60 mil HDTPE     | 700,000 ft2 |
| <b>Location:</b>   | Plattsburgh, NY                     | Geocomposite     | 500,000 ft2 |
| <b>Consulting:</b> | Barton & Loguidice Engineering Inc. | GCL              | 150,000 ft2 |
|                    |                                     | Geotextile       | 350,000 ft2 |

---

**Project Title:** *Cresticon Landfill Closure*

|                    |                      |                  |             |
|--------------------|----------------------|------------------|-------------|
| <b>Date:</b>       | June 2003            | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | UEL Contractors Inc. | 40 mil HDTPE     | 100,000 ft2 |
| <b>Location:</b>   | Fitchburg, MA        | Geocomposite     | 100,000 ft2 |
| <b>Consulting:</b> | Earth Tech Inc.      |                  |             |

---

**Project Title:** *Brockton Landfill Closure*

|                    |                            |                  |             |
|--------------------|----------------------------|------------------|-------------|
| <b>Date:</b>       | August 2003                | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | David G. Roach & Sons Inc. | 40 mil HDTPE     | 400,000 ft2 |
| <b>Location:</b>   | Brockton, MA               |                  |             |
| <b>Consulting:</b> | Sitec Environmental        |                  |             |

---

**Project Title:** *Nashua Landfill Closure*

|                    |                      |                  |             |
|--------------------|----------------------|------------------|-------------|
| <b>Date:</b>       | November 2003        | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | R. Bates & Sons Inc. | 40 mil HDTPE     | 300,000 ft2 |
| <b>Location:</b>   | Nashua, NH           |                  |             |
| <b>Consulting:</b> | CMA Engineers Inc.   |                  |             |

---

**Project Title:** *Walkers Brook Crossing Landfill Closure - Phase 1*

|                    |                              |                  |             |
|--------------------|------------------------------|------------------|-------------|
| <b>Date:</b>       | October - December 2003      | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | D.W. White Construction Inc. | 40 mil LLDTPE    | 350,000 ft2 |
| <b>Location:</b>   | Reading, MA                  |                  |             |
| <b>Consulting:</b> | Haley & Aldrich Inc.         |                  |             |

---

**Project Title:** *Southbridge Landfill Expansion - Cell 7.1B*

|                    |                           |                      |             |
|--------------------|---------------------------|----------------------|-------------|
| <b>Date:</b>       | August/September 2003     | <b>Materials</b>     | <b>Area</b> |
| <b>Client:</b>     | Wood Recycling Inc.       | 60 mil HDTPE (white) | 400,000 ft2 |
| <b>Location:</b>   | Southbridge, MA           | Geocomposite         | 400,000 ft2 |
| <b>Consulting:</b> | Lynfield Engineering Inc. | GCL                  | 200,000 ft2 |

---

**Project Title:** *Walkers Brook Crossing Landfill Closure - Phase 2*

|              |                        |                  |             |
|--------------|------------------------|------------------|-------------|
| <b>Date:</b> | August - December 2004 | <b>Materials</b> | <b>Area</b> |
|--------------|------------------------|------------------|-------------|



|                    |                              |               |             |
|--------------------|------------------------------|---------------|-------------|
| <b>Client:</b>     | D.W. White Construction Inc. | 40 mil LLDTPE | 800,000 ft2 |
| <b>Location:</b>   | Reading, MA                  |               |             |
| <b>Consulting:</b> | Haley & Aldrich Inc.         |               |             |

**Project Title:** *Crapo Hill Landfill Closure*

|                    |                            |                  |             |
|--------------------|----------------------------|------------------|-------------|
| <b>Date:</b>       | August/September 2004      | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | David G. Roach & Sons Inc. | 40 mil LLDTPE    | 500,000 ft2 |
| <b>Location:</b>   | New Bedford, MA            | Geocomposite     | 500,000 ft2 |
| <b>Consulting:</b> | Brown & Caldwell           |                  |             |

**Project Title:** *Carver Landfill Closure*

|                    |                    |                  |             |
|--------------------|--------------------|------------------|-------------|
| <b>Date:</b>       | August 2004        | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | BATG Environmental | 40 mil HDTPE     | 360,000 ft2 |
| <b>Location:</b>   | Carver, MA         | Geocomposite     | 360,000 ft2 |
| <b>Consulting:</b> | Norfolk Ram Group  |                  |             |

**Project Title:** *Lebanon Landfill Expansion - Phase 2B*

|                    |                          |                  |             |
|--------------------|--------------------------|------------------|-------------|
| <b>Date:</b>       | June/July 2004           | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | A. J. Coleman & Son Inc. | 60 mil HDPE      | 560,000 ft2 |
| <b>Location:</b>   | Lebanon, NH              | 60 mil HDTPE     | 75,000 ft2  |
| <b>Consulting:</b> | CMA Engineers Inc.       | Geocomposite     | 550,000 ft2 |
|                    |                          | GCL              | 250,000 ft2 |

**Project Title:** *Ontario County Landfill Expansion - Stage 4*

|                    |                                     |                  |               |
|--------------------|-------------------------------------|------------------|---------------|
| <b>Date:</b>       | July/August 2004                    | <b>Materials</b> | <b>Area</b>   |
| <b>Client:</b>     | Casella Waste Inc.                  | 60 mil HDTPE     | 1,150,000 ft2 |
| <b>Location:</b>   | Seneca, NY                          | Geocomposite     | 850,000 ft2   |
| <b>Consulting:</b> | Barton & Loguidice Engineering Inc. | GCL              | 340,000 ft2   |
|                    |                                     | Geotextile       | 600,000 ft2   |

**Project Title:** *Schultz Landfill Closure*

|                    |                    |                  |             |
|--------------------|--------------------|------------------|-------------|
| <b>Date:</b>       | July/August 2004   | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Waste Inc. | 40 mil LLDTPE    | 850,000 ft2 |
| <b>Location:</b>   | Cheektowaga, NY    | Geocomposite     | 650,000 ft2 |
| <b>Consulting:</b> | Ensol Inc.         | Geotextile       | 230,000 ft2 |

**Project Title:** *Southbridge Landfill Expansion - Cell 7.2A*

|                    |                       |                  |             |
|--------------------|-----------------------|------------------|-------------|
| <b>Date:</b>       | August/September 2005 | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Waste Inc.    | 60 mil HDTPE     | 400,000 ft2 |
| <b>Location:</b>   | Southbridge, MA       | Geocomposite     | 400,000 ft2 |
| <b>Consulting:</b> | Geosyntec Consultants | GCL              | 200,000 ft2 |

**Project Title:** *Waste USA - Phase 4 - Cell 1*

|                    |                            |                  |             |
|--------------------|----------------------------|------------------|-------------|
| <b>Date:</b>       | October/November 2005      | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Waste Management   | 60 mil HDTPE     | 700,000 ft2 |
| <b>Location:</b>   | Newport, VT                | Geocomposite     | 700,000 ft2 |
| <b>Consulting:</b> | Sanborn, Head & Associates | GCL              | 200,000 ft2 |

**Project Title:** *Ontario County Landfill Expansion - Stage 5A*

|                    |                                     |                  |               |
|--------------------|-------------------------------------|------------------|---------------|
| <b>Date:</b>       | July/August 2005                    | <b>Materials</b> | <b>Area</b>   |
| <b>Client:</b>     | Casella Waste Inc.                  | 60 mil HDTPE     | 1,200,000 ft2 |
| <b>Location:</b>   | Seneca, NY                          | Geocomposite     | 1,000,000 ft2 |
| <b>Consulting:</b> | Barton & Loguidice Engineering Inc. | GCL              | 200,000 ft2   |
|                    |                                     | Geotextile       | 1,150,000 ft2 |

**Project Title:** *Poland Springs Pond*

|                |                    |                  |             |
|----------------|--------------------|------------------|-------------|
| <b>Date:</b>   | November 2005      | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b> | Shaw Brothers Inc. | 40 mil HDTPE     | 120,000 ft2 |

**Location:** Hollis, ME  
**Consulting:** In House

---

***Project Title:*** ***Orleans Landfill Closure***

|                    |                       |                  |             |
|--------------------|-----------------------|------------------|-------------|
| <b>Date:</b>       | June 2005             | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Robert B. Our Co.     | 40 mil HDTPE     | 700,000 ft2 |
| <b>Location:</b>   | Orlenas, MA           |                  |             |
| <b>Consulting:</b> | Stearns & Wheler Inc. |                  |             |

---

---

***Project Title:*** ***Wellfleet Landfill Closure***

|                    |                             |                  |             |
|--------------------|-----------------------------|------------------|-------------|
| <b>Date:</b>       | June 2005                   | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | UEL Contractors Inc.        | 40 mil LLDTPPE   | 300,000 ft2 |
| <b>Location:</b>   | Wellfleet, MA               |                  |             |
| <b>Consulting:</b> | Environmental Partners Inc. |                  |             |

---

---

***Project Title:*** ***Bethlehem Landfill Expansion Stage 4 - Phase 1***

|                    |                            |                  |             |
|--------------------|----------------------------|------------------|-------------|
| <b>Date:</b>       | June 2006                  | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Waste Management   | 60 mil HDTPE     | 350,000 ft2 |
| <b>Location:</b>   | Bethlehem, NH              | Geocomposite     | 350,000 ft2 |
| <b>Consulting:</b> | Sanborn, Head & Associates |                  |             |

---

---

***Project Title:*** ***Southbridge Landfill Closure***

|                    |                          |                  |             |
|--------------------|--------------------------|------------------|-------------|
| <b>Date:</b>       | June - October 2006      | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Waste Management | 40 mil HDTPE     | 400,000 ft2 |
| <b>Location:</b>   | Southbridge, MA          | 60 mil HDTPE     | 300,000 ft2 |
| <b>Consulting:</b> | Geosyntec Consultants    | Geocomposite     | 700,000 ft2 |

---

---

***Project Title:*** ***Brockton Landfill Closure***

|                    |                            |                  |             |
|--------------------|----------------------------|------------------|-------------|
| <b>Date:</b>       | August 2006                | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | David G. Roach & Sons Inc. | 40 mil HDTPE     | 700,000 ft2 |
| <b>Location:</b>   | Brockton, MA               |                  |             |
| <b>Consulting:</b> | Sitec Environmental        |                  |             |

---

---

***Project Title:*** ***Schuyler Falls Landfill Expansion - Overlay Phase 3***

|                    |                                     |                  |             |
|--------------------|-------------------------------------|------------------|-------------|
| <b>Date:</b>       | August/September 2006               | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Marcy Construction Inc.             | 60 mil HDTPE     | 500,000 ft2 |
| <b>Location:</b>   | Plattsburgh, NY                     | Geocomposite     | 250,000 ft2 |
| <b>Consulting:</b> | Barton & Loguidice Engineering Inc. | Geotextile       | 250,000 ft2 |

---

---

***Project Title:*** ***Chemung County Landfill Expansion - Stage 4A***

|                    |                                     |                  |             |
|--------------------|-------------------------------------|------------------|-------------|
| <b>Date:</b>       | August/September 2006               | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Waste Inc.                  | 60 mil HDTPE     | 600,000 ft2 |
| <b>Location:</b>   | Elmira, NY                          | Geocomposite     | 600,000 ft2 |
| <b>Consulting:</b> | Barton & Loguidice Engineering Inc. | GCL              | 150,000 ft2 |
|                    |                                     | Geotextile       | 300,000 ft2 |

---

---

***Project Title:*** ***Franklin Landfill Expansion - Phase 4***

|                    |                        |                  |             |
|--------------------|------------------------|------------------|-------------|
| <b>Date:</b>       | July/August 2006       | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | RD Edmunds & Sons Inc. | 80 mil HDTPE     | 150,000 ft2 |
| <b>Location:</b>   | Franklin, NH           | Geocomposite     | 150,000 ft2 |
| <b>Consulting:</b> | CMA Engineers Inc.     | GCL              | 80,000 ft2  |

---

---

***Project Title:*** ***Stoughton Landfill Closure***

|                    |                     |                  |             |
|--------------------|---------------------|------------------|-------------|
| <b>Date:</b>       | October 2006        | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | TW Conroy LLC       | 40 mil HDTPE     | 250,000 ft2 |
| <b>Location:</b>   | Stoughton, MA       |                  |             |
| <b>Consulting:</b> | Sitec Environmental |                  |             |

---

**Project Title:** *Millville Landfill Closure***Date:** October 2006**Client:** BATG Environmental Inc.**Location:** Millville, MA**Consulting:** In House**Materials**

40 mil HDTPE

Geocomposite

**Area**

120,000 ft2

240,000 ft2

---

**Project Title:** *Auburn Landfill Closure***Date:** June 2007**Client:** Marcy Excavation Inc.**Location:** Auburn, NY**Consulting:** Barton & Loguidice Engineering Inc.**Materials**

40 mil LLDTPE

Geocomposite

**Area**

250,000 ft2

400,000 ft2

---

**Project Title:** *Southbridge Landfill Expansion***Date:** June - July 2007**Client:** Casella Waste Management**Location:** Southbridge, MA**Consulting:** Geosyntec Consultants**Materials**

60 mil HDTPE

Geocomposite

GCL

**Area**

400,000 ft2

400,000 ft2

200,000 ft2

---

**Project Title:** *Ontario County Landfill Expansion - Stage 5B & 6A***Date:** July - August 2007**Client:** Casella Waste Inc.**Location:** Seneca, NY**Consulting:** Barton & Loguidice Engineering Inc.**Materials**

60 mil HDTPE

Geocomposite

GCL

Geotextile

**Area**

760,000 ft2

550,000 ft2

220,000 ft2

780,000 ft2

---

**Project Title:** *Hakes Landfill Expansion - Cell 5***Date:** August 2007**Client:** Hyland Landfill Facility Inc.**Location:** Campbell, NY**Consulting:** McMahon & Mann Engineering Inc.**Materials**

60 mil HDPE

Geotextile

Geocomposite

**Area**

280,000 ft2

280,000 ft2

280,000 ft2

---

**Project Title:** *Hyland Landfill Expansion - Cell 3A***Date:** July - September 2007**Client:** Hyland Landfill Facility Inc.**Location:** Angelica, NY**Consulting:** McMahon & Mann Engineering Inc.**Materials**

60 mil HDPE

Geotextile

Geocomposite

GCL

**Area**

830,000 ft2

420,000 ft2

700,000 ft2

150,000 ft2

---

**Project Title:** *International Paper Landfill Closure***Date:** August 2007**Client:** Marcy Excavation Inc.**Location:** Watertown, NY**Consulting:** Stearns & Wheler LLC**Materials**

40 mil LLDTPE

**Area**220,000 ft2

---

**Project Title:** *Waste USA - Phase 4 - Cell 2***Date:** August 2007**Client:** Casella Waste Inc.**Location:** Newport, VT**Consulting:** Sanborn, Head & Associates**Materials**

60 mil HDTPE

Geocomposite

GCL

**Area**

650,000 ft2

650,000 ft2

220,000 ft2

---

**Project Title:** *Hardwick Landfill Closure***Date:** September 2007**Client:** Casella Waste Inc.**Location:** Hardwick, MA**Consulting:** Tighe & Bond Inc.**Materials**

40 mil HDTPE

**Area**

500,000 ft2

|                       |                                                    |                  |             |
|-----------------------|----------------------------------------------------|------------------|-------------|
| <b>Project Title:</b> | <b><i>Colebrook Landfill Closure - Phase 1</i></b> |                  |             |
| <b>Date:</b>          | August 2007                                        | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>        | Casella Waste Inc.                                 | 40 mil HDTPE     | 300,000 ft2 |
| <b>Location:</b>      | Colebrook, NH                                      | Geocomposite     | 300,000 ft2 |
| <b>Consulting:</b>    | Lynfield Engineering Inc.                          |                  |             |

|                       |                                         |                  |             |
|-----------------------|-----------------------------------------|------------------|-------------|
| <b>Project Title:</b> | <b><i>Old Town Landfill Closure</i></b> |                  |             |
| <b>Date:</b>          | November 2007                           | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>        | Casella Waste Inc.                      | 40 mil HDTPE     | 300,000 ft2 |
| <b>Location:</b>      | Old Town, ME                            |                  |             |
| <b>Consulting:</b>    | Sevee & Maher Inc.                      |                  |             |

|                       |                                                            |                  |             |
|-----------------------|------------------------------------------------------------|------------------|-------------|
| <b>Project Title:</b> | <b><i>Nantucket Compost Plant - Phase 2B Expansion</i></b> |                  |             |
| <b>Date:</b>          | October 2007                                               | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>        | Waste Options Inc.                                         | 60 mil HDPE      | 60,000 ft2  |
| <b>Location:</b>      | Nantucket, MA                                              | 80 mil HDPE      | 60,000 ft2  |
| <b>Consulting:</b>    | In-house                                                   | Geocomposite     | 60,000 ft2  |
|                       |                                                            | GCL              | 120,000 ft2 |

|                       |                                         |                  |             |
|-----------------------|-----------------------------------------|------------------|-------------|
| <b>Project Title:</b> | <b><i>Hardwick Landfill Closure</i></b> |                  |             |
| <b>Date:</b>          | June 2008                               | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>        | Casella Waste Inc.                      | 40 mil HDTPE     | 750,000 ft2 |
| <b>Location:</b>      | Hardwick, MA                            | Geotextile       | 320,000 ft2 |
| <b>Consulting:</b>    | Tighe & Bond Inc.                       |                  |             |

|                       |                                          |                  |             |
|-----------------------|------------------------------------------|------------------|-------------|
| <b>Project Title:</b> | <b><i>Fort Drum Landfill Closure</i></b> |                  |             |
| <b>Date:</b>          | June 2008                                | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>        | Plexus Scientific Corporation            | 40 mil LLDTPPE   | 750,000 ft2 |
| <b>Location:</b>      | Fort Drum, NY                            |                  |             |
| <b>Consulting:</b>    | USACE                                    |                  |             |

|                       |                                                           |                  |             |
|-----------------------|-----------------------------------------------------------|------------------|-------------|
| <b>Project Title:</b> | <b><i>Franklin County Landfill Expansion - Cell 4</i></b> |                  |             |
| <b>Date:</b>          | August 2008                                               | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>        | Perras Excavating Inc.                                    | 60 mil HDTPE     | 500,000 ft2 |
| <b>Location:</b>      | Constable, NY                                             | Geocomposite     | 330,000 ft2 |
| <b>Consulting:</b>    | Barton & Loguidice Engineering Inc.                       | GCL              | 230,000 ft2 |

|                       |                                               |                  |             |
|-----------------------|-----------------------------------------------|------------------|-------------|
| <b>Project Title:</b> | <b><i>Fort Drum Fuel Tank Containment</i></b> |                  |             |
| <b>Date:</b>          | August 2008                                   | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>        | CAPE Inc.                                     | Petroguard 6     | 12,000 ft2  |
| <b>Location:</b>      | Fort Drum, NY                                 |                  |             |

|                       |                                         |                  |             |
|-----------------------|-----------------------------------------|------------------|-------------|
| <b>Project Title:</b> | <b><i>Charlton Landfill Closure</i></b> |                  |             |
| <b>Date:</b>          | December 2008                           | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>        | BATG Environmental Inc.                 | 40 mil HDTPE     | 450,000 ft2 |
| <b>Location:</b>      | Charlton, MA                            |                  |             |
| <b>Consulting:</b>    | In House                                |                  |             |

|                       |                                                                        |                  |             |
|-----------------------|------------------------------------------------------------------------|------------------|-------------|
| <b>Project Title:</b> | <b><i>Bethlehem Landfill Expansion Stage 4 - Phase 1 (Overlay)</i></b> |                  |             |
| <b>Date:</b>          | July 2008                                                              | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>        | NCES                                                                   | 60 mil HDTPE     | 230,000 ft2 |
| <b>Location:</b>      | Bethlehem, NH                                                          | Geocomposite     | 230,000 ft2 |
| <b>Consulting:</b>    | CMA Engineers Inc.                                                     |                  |             |

---

**Project Title:** *Nashua Landfill Expansion***Date:** July - September 2008**Client:** RD Edmunds & Sons Inc.**Location:** Nashua, NH**Consulting:** Geosyntec Consultants**Materials**

60 mil HDTPE

Geocomposite

GCL

**Area**

1,300,000 ft2

1,300,000 ft2

330,000 ft2

---

**Project Title:** *Hyland Landfill Expansion - Cell 3B***Date:** July 2008**Client:** Hyland Landfill Facility Inc.**Location:** Angelica, NY**Consulting:** McMahon & Mann Engineering Inc.**Materials**

60 mil HDPE

Geotextile

GCL

**Area**

200,000 ft2

100,000 ft2

100,000 ft2

---

**Project Title:** *Hakes Landfill Expansion - Cell 6***Date:** August 2008**Client:** Hyland Landfill Facility Inc.**Location:** Campbell, NY**Consulting:** McMahon & Mann Engineering Inc.**Materials**

60 mil HDPE

Geotextile

Geocomposite

**Area**

330,000 ft2

330,000 ft2

280,000 ft2

---

**Project Title:** *Bourne Landfill Expansion - Phase 2A/3A - Stage 2***Date:** September 2008**Client:** G. Lopes Construction Inc.**Location:** Bourne, MA**Consulting:** Sitec Environmental**Materials**

60 mil HDTPE

Geocomposite

GCL

**Area**

800,000 ft2

400,000 ft2

660,000 ft2

---

**Project Title:** *Edgeboro Landfill***Date:** October - December 2008**Client:** Edgeboro International**Location:** East Brunswick, NJ**Consulting:** Sadat Associates Inc.**Materials**

12 mil Skrim

Geotextile

**Area**

1,000,000 ft2

2,000,000 ft2

---

**Project Title:** *Colebrook Landfill Closure - Phase 2***Date:** June 2009**Client:** Casella Waste Inc.**Location:** Colebrook, NH**Consulting:** Lynfield Engineering Inc.**Materials**

40 mil HDTPE

Geocomposite

**Area**

400,000 ft2

400,000 ft2

---

**Project Title:** *Southbridge Landfill Expansion***Date:** July 2009**Client:** Casella Waste Management**Location:** Southbridge, MA**Consulting:** Geosyntec Consultants**Materials**

60 mil HDTPE

Geocomposite

GCL

**Area**

240,000 ft2

240,000 ft2

120,000 ft2

---

**Project Title:** *Bourne Landfill - Temp Closure***Date:** October 2009**Client:** Bourne ISWMF**Location:** Bourne, MA**Consulting:** Sitec Environmental**Materials**

30 mil HDPE

**Area**480,000 ft2

---

**Project Title:** *Ontario County Landfill Expansion - Stage 6B***Date:** July - August 2009**Client:** Casella Waste Inc.**Location:** Seneca, NY**Consulting:** Barton & Loguidice Engineering Inc.**Materials**

60 mil HDTPE

Geocomposite

GCL

Geotextile

**Area**

700,000 ft2

550,000 ft2

170,000 ft2

700,000 ft2

---

**Project Title:** *Hakes Landfill Closure*

|                    |                                 |                  |             |
|--------------------|---------------------------------|------------------|-------------|
| <b>Date:</b>       | July 2009                       | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Hyland Landfill Facility Inc.   | 40 mil LLTDPE    | 480,000 ft2 |
| <b>Location:</b>   | Campbell, NY                    | Geotextile       | 230,000 ft2 |
| <b>Consulting:</b> | McMahon & Mann Engineering Inc. | Geocomposite     | 700,000 ft2 |

---

**Project Title:** *Waste USA - Phase 4 - Cell 3A*

|                    |                            |                  |             |
|--------------------|----------------------------|------------------|-------------|
| <b>Date:</b>       | September 2009             | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Waste Inc.         | 60 mil HDTPE     | 550,000 ft2 |
| <b>Location:</b>   | Newport, VT                | Geocomposite     | 560,000 ft2 |
| <b>Consulting:</b> | Sanborn, Head & Associates | GCL              | 165,000 ft2 |

---

**Project Title:** *Akey Road Landfill Closure*

|                    |                                     |                  |               |
|--------------------|-------------------------------------|------------------|---------------|
| <b>Date:</b>       | July - September 2010               | <b>Materials</b> | <b>Area</b>   |
| <b>Client:</b>     | Casella Construction Inc.           | 40 mil LLDTPE    | 1,300,000 ft2 |
| <b>Location:</b>   | Plattsburgh, NY                     | Geocomposite     | 1,300,000 ft2 |
| <b>Consulting:</b> | Barton & Loguidice Engineering Inc. |                  |               |

---

**Project Title:** *Worcester Landfill Closure*

|                    |                          |                  |             |
|--------------------|--------------------------|------------------|-------------|
| <b>Date:</b>       | June 2010                | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Waste Management | 40 mil HDTPE     | 550,000 ft2 |
| <b>Location:</b>   | Worcester, MA            | Geocomposite     | 200,000 ft2 |
| <b>Consulting:</b> | Geosyntec Consultants    |                  |             |

---

**Project Title:** *Clinton County Landfill Expansion - Phase 5 - Cell 1A*

|                    |                                     |                  |             |
|--------------------|-------------------------------------|------------------|-------------|
| <b>Date:</b>       | July - September 2010               | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Waste Management            | 60 mil HDTPE     | 700,000 ft2 |
| <b>Location:</b>   | Plattsburgh, NY                     | Geocomposite     | 700,000 ft2 |
| <b>Consulting:</b> | Barton & Loguidice Engineering Inc. | GCL              | 90,000 ft2  |
|                    |                                     | Geotextile       | 350,000 ft2 |

---

**Project Title:** *Waste USA - Phase 4 - Cell 4A*

|                    |                            |                  |             |
|--------------------|----------------------------|------------------|-------------|
| <b>Date:</b>       | September 2010             | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Waste Inc.         | 60 mil HDTPE     | 300,000 ft2 |
| <b>Location:</b>   | Newport, VT                | Geocomposite     | 320,000 ft2 |
| <b>Consulting:</b> | Sanborn, Head & Associates | GCL              | 120,000 ft2 |

---

**Project Title:** *Clinton County Landfill Closure - Phase 3 - Stage 1*

|                    |                                     |                  |             |
|--------------------|-------------------------------------|------------------|-------------|
| <b>Date:</b>       | October 2010                        | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Waste Management            | 40 mil HDTPE     | 230,000 ft2 |
| <b>Location:</b>   | Plattsburgh, NY                     |                  |             |
| <b>Consulting:</b> | Barton & Loguidice Engineering Inc. |                  |             |

---

**Project Title:** *Ontario County Landfill Expansion - Stage 7A*

|                    |                                     |                  |             |
|--------------------|-------------------------------------|------------------|-------------|
| <b>Date:</b>       | July - August 2010                  | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Waste Inc.                  | 60 mil HDTPE     | 530,000 ft2 |
| <b>Location:</b>   | Seneca, NY                          | Geocomposite     | 350,000 ft2 |
| <b>Consulting:</b> | Barton & Loguidice Engineering Inc. | GCL              | 190,000 ft2 |
|                    |                                     | Geotextile       | 660,000 ft2 |

---

**Project Title:** *Chemung County Landfill Expansion - Cell 4B*

|                    |                                     |                  |             |
|--------------------|-------------------------------------|------------------|-------------|
| <b>Date:</b>       | July - August 2010                  | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Waste Inc.                  | 60 mil HDTPE     | 420,000 ft2 |
| <b>Location:</b>   | Elmira, NY                          | Geocomposite     | 400,000 ft2 |
| <b>Consulting:</b> | Barton & Loguidice Engineering Inc. | GCL              | 70,000 ft2  |
|                    |                                     | Geotextile       | 225,000 ft2 |

---



---

**Project Title:** *Southbridge Landfill - Temp Closure*

|                    |                          |                  |             |
|--------------------|--------------------------|------------------|-------------|
| <b>Date:</b>       | October 2010             | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Waste Management | 40 mil HDTPE     | 400,000 ft2 |
| <b>Location:</b>   | Southbridge, MA          |                  |             |
| <b>Consulting:</b> | Geosyntec Consultants    |                  |             |

---

---

**Project Title:** *Hyland Landfill Expansion - Cell 3C*

|                    |                                 |                  |             |
|--------------------|---------------------------------|------------------|-------------|
| <b>Date:</b>       | July 2010                       | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Hyland Landfill Facility Inc.   | 60 mil HDPE      | 200,000 ft2 |
| <b>Location:</b>   | Angelica, NY                    | Geotextile       | 100,000 ft2 |
| <b>Consulting:</b> | McMahon & Mann Engineering Inc. | GCL              | 60,000 ft2  |

---

---

**Project Title:** *Stoughton Landfill Closure*

|                    |                          |                  |             |
|--------------------|--------------------------|------------------|-------------|
| <b>Date:</b>       | October 2010             | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Stoughton Recycling LLC  | 40 mil HDTPE     | 200,000 ft2 |
| <b>Location:</b>   | Stoughton, MA            |                  |             |
| <b>Consulting:</b> | Green Seal Environmental |                  |             |

---

---

**Project Title:** *Range Resources - Impoundments*

|                    |                                |                  |               |
|--------------------|--------------------------------|------------------|---------------|
| <b>Date:</b>       | March - December 2010          | <b>Materials</b> | <b>Area</b>   |
| <b>Client:</b>     | New Dominion Construction Inc. | 40 mil LLDPE     | 3,000,000 ft2 |
| <b>Location:</b>   | Misc. Sites                    | Geotextile       | 1,400,000 ft2 |
| <b>Consulting:</b> | n/a                            |                  |               |

---

---

**Project Title:** *Talisman Energy - Impoundments*

|                    |                                |                  |               |
|--------------------|--------------------------------|------------------|---------------|
| <b>Date:</b>       | March - December 2010          | <b>Materials</b> | <b>Area</b>   |
| <b>Client:</b>     | New Dominion Construction Inc. | 40 mil HDPE      | 1,500,000 ft2 |
| <b>Location:</b>   | Misc. Sites                    | Geotextile       | 1,500,000 ft2 |
| <b>Consulting:</b> | n/a                            |                  |               |

---

---

**Project Title:** *Hyland Landfill Expansion - Cell 4A*

|                    |                                 |                  |             |
|--------------------|---------------------------------|------------------|-------------|
| <b>Date:</b>       | August - October 2011           | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Hyland Landfill Facility Inc.   | 60 mil HDTPE     | 550,000 ft2 |
| <b>Location:</b>   | Angelica, NY                    | Geotextile       | 270,000 ft2 |
| <b>Consulting:</b> | McMahon & Mann Engineering Inc. | GCL              | 100,000 ft2 |
|                    |                                 | Geocomposite     | 270,000 ft2 |

---

---

**Project Title:** *Hakes Landfill Expansion - Cell 5/6 ext & 7*

|                    |                                 |                  |             |
|--------------------|---------------------------------|------------------|-------------|
| <b>Date:</b>       | August 2011                     | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Hyland Landfill Facility Inc.   | 60 mil HTDPE     | 400,000 ft2 |
| <b>Location:</b>   | Campbell, NY                    | Geotextile       | 400,000 ft2 |
| <b>Consulting:</b> | McMahon & Mann Engineering Inc. |                  |             |

---

---

**Project Title:** *McKean Landfill Expansion - Cell 5/6 ext & 7*

|                    |                                 |                  |             |
|--------------------|---------------------------------|------------------|-------------|
| <b>Date:</b>       | October 2011                    | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Hyland Landfill Facility Inc.   | 60 mil HTDPE     | 220,000 ft2 |
| <b>Location:</b>   | Mount Jewett, PA                | Geotextile       | 110,000 ft2 |
| <b>Consulting:</b> | McMahon & Mann Engineering Inc. | GCL              | 110,000 ft2 |

---

---

**Project Title:** *Clinton County Landfill Closure - Phase 3 - Stage 2*

|                    |                                     |                  |             |
|--------------------|-------------------------------------|------------------|-------------|
| <b>Date:</b>       | July - September 2011               | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Waste Management            | 40 mil LLDTPE    | 450,000 ft2 |
| <b>Location:</b>   | Plattsburgh, NY                     | Geocomposite     | 450,000 ft2 |
| <b>Consulting:</b> | Barton & Loguidice Engineering Inc. |                  |             |

---

---

**Project Title:** *Southbridge Landfill Expansion - Cell 7.1B*

|                    |                          |                  |             |
|--------------------|--------------------------|------------------|-------------|
| <b>Date:</b>       | October 2011             | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Waste Management | 60 mil HDTPE     | 200,000 ft2 |
| <b>Location:</b>   | Southbridge, MA          | GCL              | 100,000 ft2 |
| <b>Consulting:</b> | Geosyntec Consultants    | Geocomposite     | 200,000 ft2 |

---

**Project Title:** *Elizabeth Mines Landfill Closure - TP-1A & TP-2B*

|                    |                              |                  |               |
|--------------------|------------------------------|------------------|---------------|
| <b>Date:</b>       | July - October 2011          | <b>Materials</b> | <b>Area</b>   |
| <b>Client:</b>     | Nobis Engineering Inc./USACE | 60 mil LLDTPE    | 1,000,000 ft2 |
| <b>Location:</b>   | South Strafford, VT          | Geocomposite     | 1,000,000 ft2 |
| <b>Consulting:</b> | USACE                        |                  |               |

---

**Project Title:** *Waste USA - Phase 4 - Cell 2C*

|                    |                            |                  |             |
|--------------------|----------------------------|------------------|-------------|
| <b>Date:</b>       | September 2011             | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Waste Inc.         | 60 mil HDTPE     | 400,000 ft2 |
| <b>Location:</b>   | Newport, VT                | Geocomposite     | 400,000 ft2 |
| <b>Consulting:</b> | Sanborn, Head & Associates | GCL              | 80,000 ft2  |

---

**Project Title:** *OMYA - Phase 1 - Cell 1B/Stage 1*

|                    |                            |                  |             |
|--------------------|----------------------------|------------------|-------------|
| <b>Date:</b>       | October 2011               | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Construction Inc.  | 60 mil HDTPE     | 100,000 ft2 |
| <b>Location:</b>   | Florence, VT               | Geocomposite     | 100,000 ft2 |
| <b>Consulting:</b> | Sanborn, Head & Associates |                  |             |

---

**Project Title:** *Enerplus - Keating Impoundments*

|                    |                            |                  |             |
|--------------------|----------------------------|------------------|-------------|
| <b>Date:</b>       | December 2011 - March 2012 | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Enerplus Resources Corp.   | 60 mil HDTPE     | 500,000 ft2 |
| <b>Location:</b>   | Misc. Sites                | 40 mil HDTPE     | 300,000 ft2 |
| <b>Consulting:</b> | ARM Group Inc.             | Geotextile       | 600,000 ft2 |
|                    |                            | Geonet           | 130,000 ft2 |

---

**Project Title:** *Range Resources - Impoundments*

|                    |                                |                  |               |
|--------------------|--------------------------------|------------------|---------------|
| <b>Date:</b>       | March - December 2011          | <b>Materials</b> | <b>Area</b>   |
| <b>Client:</b>     | New Dominion Construction Inc. | 40 mil LLDPE     | 1,000,000 ft2 |
| <b>Location:</b>   | Misc. Sites                    | Geotextile       | 1,000,000 ft2 |
| <b>Consulting:</b> | n/a                            |                  |               |

---

**Project Title:** *Talisman Energy - Impoundments*

|                    |                      |                  |             |
|--------------------|----------------------|------------------|-------------|
| <b>Date:</b>       | July - August 2011   | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Talisman Energy Inc. | 40 mil HDTPE     | 400,000 ft2 |
| <b>Location:</b>   | Misc. Sites          | Geotextile       | 400,000 ft2 |
| <b>Consulting:</b> | n/a                  |                  |             |

## **SUMMARY OF INSTALLED PRODUCTS**

|              |                |               |                |
|--------------|----------------|---------------|----------------|
| 30 mil HDPE  | 480,000 ft2    | 40 mil LLDPE  | 4,000,000 ft2  |
| 40 mil HDPE  | 3,855,000 ft2  | 40 mil LLDTPE | 9,425,000 ft2  |
| 40 mil HDTPE | 17,100,000 ft2 | 60 mil LLDTPE | 1,000,000 ft2  |
| 60 mil HDPE  | 2,532,000 ft2  | 40 mil PVC    | 1,500,000 ft2  |
| 60 mil HDTPE | 23,325,000 ft2 | Geocomposite  | 33,295,000 ft2 |
| 80 mil HDPE  | 1,170,000 ft2  | GCL           | 10,545,000 ft2 |
| 80 mil HDTPE | 1,950,000 ft2  | Geotextile    | 20,325,000 ft2 |
| 100 mil HDPE | 2,490,000 ft2  | Geonet        | 4,920,000 ft2  |

# terrafix<sup>®</sup>

## environmental U.S.A. inc.

P.O. Box 367, 34 Court Street Auburn, Maine 04212 U.S.A. Tel: (207) 786-6808 Fax: (207) 786-6835

### *ADALBERTO AGUILAR ~ TECHNICIAN*

#### *INSTALLATION REFERENCES*

| YEAR | PROJECT                 | PRODUCT                              | QUANTITY                                           | LOCATION         |
|------|-------------------------|--------------------------------------|----------------------------------------------------|------------------|
| 2001 | LANDFILL CLOSURE        | 40 MIL LLDTPPE                       | 700,000 FT <sup>2</sup>                            | MONTPELIER, VT   |
| 2001 | LANDFILL CLOSURE        | 40 MIL LLDTPPE                       | 150,000 FT <sup>2</sup>                            | NEWBURY, VT      |
| 2001 | LANDFILL CLOSURE        | 60 MIL HDTPE                         | 160,000 FT <sup>2</sup>                            | PLATTSBURGH, NY  |
| 2001 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 400,000 FT <sup>2</sup>                            | CLAREMONT, NH    |
| 2001 | LANDFILL EXPANSION      | 100 MIL HDTPE                        | 1,000,000 FT <sup>2</sup>                          | WILLIAMSPORT, PA |
| 2002 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 1,800,000 FT <sup>2</sup>                          | WOBURN, MA       |
| 2002 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 450,000 FT <sup>2</sup>                            | AYER, MA         |
| 2002 | LANDFILL CLOSURE        | 40 MIL LLDTPPE                       | 200,000 FT <sup>2</sup>                            | PLYMOUTH, NH     |
| 2002 | WWTP LAGOON             | 40 MIL HDTPE                         | 120,000 FT <sup>2</sup>                            | BRENTWOOD, NH    |
| 2003 | LANDFILL CLOSURE        | 40 MIL LLDTPPE<br>60 MIL HDPE (COND) | 500,000 FT <sup>2</sup><br>100,000 FT <sup>2</sup> | JAMESTOWN, NY    |
| 2003 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 100,000 FT <sup>2</sup>                            | FITCHBURG, MA    |
| 2003 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 400,000 FT <sup>2</sup>                            | BROCKTON, MA     |
| 2003 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 300,000 FT <sup>2</sup>                            | NASHUA, NH       |
| 2003 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 350,000 FT <sup>2</sup>                            | READING, MA      |
| 2004 | LANDFILL CLOSURE (PH 2) | 40 MIL HDTPE                         | 800,000 FT <sup>2</sup>                            | READING, MA      |
| 2004 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 650,000 FT <sup>2</sup>                            | LEBANON, NH      |
| 2004 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 1,150,000 FT <sup>2</sup>                          | SENECA, NY       |
| 2005 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 400,000 FT <sup>2</sup>                            | SOUTHBRIDGE, MA  |
| 2005 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 700,000 FT <sup>2</sup>                            | NEWPORT, VT      |
| 2005 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 700,000 FT <sup>2</sup>                            | ORLEANS, MA      |
| 2005 | LANDFILL CLOSURE        | 40 MIL LLDTPPE                       | 300,000 FT <sup>2</sup>                            | WELLFLEET, MA    |
| 2006 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 500,000 FT <sup>2</sup>                            | PLATTSBURGH, NY  |
| 2006 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 350,000 FT <sup>2</sup>                            | BETHLEHEM, NH    |
| 2006 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 220,000 FT <sup>2</sup>                            | STOUGHTON, MA    |
| 2007 | LANDFILL CLOSURE        | 40 MIL LLDTPPE                       | 250,000 FT <sup>2</sup>                            | AUBURN, NY       |

|      |                                 |                |                           |                 |
|------|---------------------------------|----------------|---------------------------|-----------------|
| 2007 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 400,000 FT <sup>2</sup>   | SOUTHBRIDGE, MA |
| 2007 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 800,000 FT <sup>2</sup>   | STANLEY, NY     |
| 2007 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 650,000 FT <sup>2</sup>   | NEWPORT, VT     |
| 2007 | LANDFILL CLOSURE                | 40 MIL HDTPE   | 300,000 FT <sup>2</sup>   | COLEBROOK, NH   |
| 2008 | LANDFILL CLOSURE                | 40 MIL HDTPE   | 750,000 FT <sup>2</sup>   | HARDWICK, MA    |
| 2008 | LANDFILL CLOSURE                | 40 MIL LLDTPPE | 750,000 FT <sup>2</sup>   | FORT DRUM, NY   |
| 2008 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 500,000 FT <sup>2</sup>   | CONSTABLE, NY   |
| 2008 | LANDFILL CLOSURE                | 40 MIL HDTPE   | 450,000 FT <sup>2</sup>   | CHARLTON, MA    |
| 2009 | LANDFILL CLOSURE                | 40 MIL HDTPE   | 400,000 FT <sup>2</sup>   | COLEBROOK, NH   |
| 2009 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 240,000 FT <sup>2</sup>   | SOUTHBRIDGE, MA |
| 2009 | LANDFILL CLOSURE<br>(TEMPORARY) | 30 MIL HDPE    | 480,000 FT <sup>2</sup>   | BOURNE, MA      |
| 2010 | LANDFILL CLOSURE                | 40 MIL LLDTPPE | 1,300,000 FT <sup>2</sup> | PLATTSBURGH, NY |
| 2010 | LANDFILL CLOSURE                | 40 MIL HDTPE   | 550,000 FT <sup>2</sup>   | WORCESTER, MA   |
| 2010 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 700,000 FT <sup>2</sup>   | PLATTSBURGH, NY |
| 2010 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 300,000 FT <sup>2</sup>   | NEWPORT, VT     |
| 2010 | LANDFILL CLOSURE                | 40 MIL HDTPE   | 230,000 FT <sup>2</sup>   | PLATTSBURGH, NY |
| 2011 | LANDFILL CLOSURE                | 40 MIL LLDTPPE | 450,000 FT <sup>2</sup>   | PLATTSBURGH, NY |
| 2011 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 400,000 FT <sup>2</sup>   | NEWPORT, VT     |
| 2011 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 100,000 FT <sup>2</sup>   | FLORENCE, VT    |
| 2011 | MISC PONDS                      | 60 MIL HDTPE   | 500,000 FT <sup>2</sup>   | EMPORIUM, PA    |

# terrafix<sup>®</sup>

## environmental U.S.A. inc.

P.O. Box 367, 34 Court Street Auburn, Maine 04212 U.S.A. Tel: (207) 786-6808 Fax: (207) 786-6835

### *KIM CHHIM ~ TECHNICIAN*

#### *INSTALLATION REFERENCES*

| YEAR | PROJECT            | PRODUCT                    | QUANTITY                                         | LOCATION        |
|------|--------------------|----------------------------|--------------------------------------------------|-----------------|
| 2004 | LANDFILL CLOSURE   | 40 MIL LLDTPPE             | 500,000 FT <sup>2</sup>                          | NEW BEDFORD, MA |
| 2004 | LANDFILL CLOSURE   | 40 MIL HDTPE               | 360,000 FT <sup>2</sup>                          | CARVER, MA      |
| 2004 | LANDFILL CLOSURE   | 40 MIL LLDTPPE             | 850,000 FT <sup>2</sup>                          | CHEEKTOWAGA, NY |
| 2005 | LANDFILL EXPANSION | 60 MIL HDTPE               | 1,200,000 FT <sup>2</sup>                        | SENECA, NY      |
| 2005 | POND               | 40 MIL HDTPE               | 120,000 FT <sup>2</sup>                          | HOLLIS, ME      |
| 2005 | LANDFILL EXPANSION | 60 MIL HDTPE               | 200,000 FT <sup>2</sup>                          | SPRINGFIELD, MA |
| 2006 | LANDFILL CLOSURE   | 40 MIL HDTPE               | 700,000 FT <sup>2</sup>                          | BROCKTON, MA    |
| 2006 | LANDFILL EXPANSION | 80 MIL HDTPE               | 150,000 FT <sup>2</sup>                          | FRANKLIN, NH    |
| 2006 | LANDFILL CLOSURE   | 40 MIL HDTPE               | 400,000 FT <sup>2</sup>                          | SOUTHBRIDGE, MA |
| 2006 | LANDFILL EXPANSION | 60 MIL HDTPE               | 600,000 FT <sup>2</sup>                          | ELMIRA, NH      |
| 2006 | LANDFILL CLOSURE   | 40 MIL HDTPE               | 120,000 FT <sup>2</sup>                          | MILLVILLE, MA   |
| 2007 | LANDFILL EXPANSION | 60 MIL HDTPE               | 280,000 FT <sup>2</sup>                          | CAMPBELL, NY    |
| 2007 | LANDFILL EXPANSION | 60 MIL HDTPE               | 850,000 FT <sup>2</sup>                          | ANGELICA, NY    |
| 2007 | LANDFILL EXPANSION | 60 MIL HDPE<br>80 MIL HDPE | 60,000 FT <sup>2</sup><br>60,000 FT <sup>2</sup> | NANTUCKET, MA   |
| 2008 | LANDFILL EXPANSION | 60 MIL HDTPE               | 230,000 FT <sup>2</sup>                          | BETHLEHEM, NH   |
| 2008 | LANDFILL EXPANSION | 60 MIL HDTPE               | 1,300,000 FT <sup>2</sup>                        | NASHUA, NH      |
| 2009 | LANDFILL EXPANSION | 60 MIL HDTPE               | 700,000 FT <sup>2</sup>                          | SENECA, NY      |
| 2010 | LANDFILL EXPANSION | 60 MIL HDTPE               | 530,000 FT <sup>2</sup>                          | SENECA, NY      |
| 2010 | LANDFILL EXPANSION | 60 MIL HDTPE               | 420,000 FT <sup>2</sup>                          | ELMIRA, NY      |
| 2010 | LANDFILL CLOSURE   | 40 MIL HDTPE               | 400,000 FT <sup>2</sup>                          | SOUTHBRIDGE, MA |
| 2010 | MISC PONDS         | 40 MIL LLDPE               | 2,200,000 FT <sup>2</sup>                        | WASHINGTON, PA  |
| 2011 | LANDFILL EXPANSION | 60 MIL HDTPE               | 550,000 FT <sup>2</sup>                          | ANGELICA, NY    |
| 2011 | LANDFILL EXPANSION | 60 MIL HDTPE               | 400,000 FT <sup>2</sup>                          | CAMPBELL, NY    |
| 2011 | LANDFILL EXPANSION | 60 MIL HDTPE               | 220,000 FT <sup>2</sup>                          | MT JEWETT, PA   |

|      |                    |              |                         |                 |
|------|--------------------|--------------|-------------------------|-----------------|
| 2011 | LANDFILL EXPANSION | 60 MIL HDTPE | 200,000 FT <sup>2</sup> | SOUTHBRIDGE, MA |
| 2011 | MISC PONDS         | 40 MIL LLDPE | 600,000 FT <sup>2</sup> | WASHINGTON, PA  |
| 2011 | MISC PONDS         | 40 MIL HDTPE | 400,000 FT <sup>2</sup> | KANE, PA        |



# terrafix<sup>®</sup>

## environmental U.S.A. inc.

P.O. Box 367, 34 Court Street Auburn, Maine 04212 U.S.A. Tel: (207) 786-6808 Fax: (207) 786-6835

### *THAVONE CHANTHANOUVONG ~ TECHNICIAN*

#### *INSTALLATION REFERENCES*

| YEAR | PROJECT                 | PRODUCT                              | QUANTITY                                           | LOCATION         |
|------|-------------------------|--------------------------------------|----------------------------------------------------|------------------|
| 2001 | LANDFILL CLOSURE        | 40 MIL LLDTPPE<br>60Z GEOCOMPOSITE   | 700,000 FT <sup>2</sup>                            | MONTPELIER, VT   |
| 2001 | LANDFILL CLOSURE        | 40 MIL LLDTPPE<br>60Z GEOCOMPOSITE   | 150,000 FT <sup>2</sup>                            | NEWBURY, VT      |
| 2001 | LANDFILL CLOSURE        | 60 MIL HDTPE                         | 160,000 FT <sup>2</sup>                            | PLATTSBURGH, NY  |
| 2001 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 400,000 FT <sup>2</sup>                            | CLAREMONT, NH    |
| 2001 | LANDFILL EXPANSION      | 100 MIL HDTPE                        | 1,000,000 FT <sup>2</sup>                          | WILLIAMSPORT, PA |
| 2002 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 1,800,000 FT <sup>2</sup>                          | WOBURN, MA       |
| 2002 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 450,000 FT <sup>2</sup>                            | AYER, MA         |
| 2002 | LANDFILL CLOSURE        | 40 MIL LLDTPPE                       | 200,000 FT <sup>2</sup>                            | PLYMOUTH, NH     |
| 2002 | WWTP LAGOON             | 40 MIL HDTPE                         | 120,000 FT <sup>2</sup>                            | BRENTWOOD, NH    |
| 2003 | LANDFILL CLOSURE        | 40 MIL LLDTPPE<br>60 MIL HDPE (COND) | 500,000 FT <sup>2</sup><br>100,000 FT <sup>2</sup> | JAMESTOWN, NY    |
| 2003 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 100,000 FT <sup>2</sup>                            | FITCHBURG, MA    |
| 2003 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 400,000 FT <sup>2</sup>                            | BROCKTON, MA     |
| 2003 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 300,000 FT <sup>2</sup>                            | NASHUA, NH       |
| 2003 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 350,000 FT <sup>2</sup>                            | READING, MA      |
| 2004 | LANDFILL CLOSURE (PH 2) | 40 MIL HDTPE                         | 800,000 FT <sup>2</sup>                            | READING, MA      |
| 2004 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 650,000 FT <sup>2</sup>                            | LEBANON, NH      |
| 2004 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 1,150,000 FT <sup>2</sup>                          | SENECA, NY       |
| 2005 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 400,000 FT <sup>2</sup>                            | SOUTHBRIDGE, MA  |
| 2005 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 700,000 FT <sup>2</sup>                            | NEWPORT, VT      |
| 2005 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 700,000 FT <sup>2</sup>                            | ORLEANS, MA      |
| 2005 | LANDFILL CLOSURE        | 40 MIL LLDTPPE                       | 300,000 FT <sup>2</sup>                            | WELLFLEET, MA    |
| 2006 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 500,000 FT <sup>2</sup>                            | PLATTSBURGH, NY  |
| 2006 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 350,000 FT <sup>2</sup>                            | BETHLEHEM, NH    |
| 2006 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 220,000 FT <sup>2</sup>                            | STOUGHTON, MA    |

|      |                                 |                |                           |                 |
|------|---------------------------------|----------------|---------------------------|-----------------|
| 2007 | LANDFILL CLOSURE                | 40 MIL LLDTPPE | 250,000 FT <sup>2</sup>   | AUBURN, NY      |
| 2007 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 400,000 FT <sup>2</sup>   | SOUTHBRIDGE, MA |
| 2007 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 800,000 FT <sup>2</sup>   | STANLEY, NY     |
| 2007 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 650,000 FT <sup>2</sup>   | NEWPORT, VT     |
| 2007 | LANDFILL CLOSURE                | 40 MIL HDTPE   | 300,000 FT <sup>2</sup>   | COLEBROOK, NH   |
| 2008 | LANDFILL CLOSURE                | 40 MIL HDTPE   | 750,000 FT <sup>2</sup>   | HARDWICK, MA    |
| 2008 | LANDFILL CLOSURE                | 40 MIL LLDTPPE | 750,000 FT <sup>2</sup>   | FORT DRUM, NY   |
| 2008 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 500,000 FT <sup>2</sup>   | CONSTABLE, NY   |
| 2008 | LANDFILL CLOSURE                | 40 MIL HDTPE   | 450,000 FT <sup>2</sup>   | CHARLTON, MA    |
| 2009 | LANDFILL CLOSURE                | 40 MIL HDTPE   | 400,000 FT <sup>2</sup>   | COLEBROOK, NH   |
| 2009 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 240,000 FT <sup>2</sup>   | SOUTHBRIDGE, MA |
| 2009 | LANDFILL CLOSURE<br>(TEMPORARY) | 30 MIL HDPE    | 480,000 FT <sup>2</sup>   | BOURNE, MA      |
| 2010 | LANDFILL CLOSURE                | 40 MIL LLDTPPE | 1,300,000 FT <sup>2</sup> | PLATTSBURGH, NY |
| 2010 | LANDFILL CLOSURE                | 40 MIL HDTPE   | 550,000 FT <sup>2</sup>   | WORCESTER, MA   |
| 2010 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 700,000 FT <sup>2</sup>   | PLATTSBURGH, NY |
| 2010 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 300,000 FT <sup>2</sup>   | NEWPORT, VT     |
| 2010 | LANDFILL CLOSURE                | 40 MIL HDTPE   | 230,000 FT <sup>2</sup>   | PLATTSBURGH, NY |
| 2011 | LANDFILL CLOSURE                | 40 MIL LLDTPPE | 450,000 FT <sup>2</sup>   | PLATTSBURGH, NY |
| 2011 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 400,000 FT <sup>2</sup>   | NEWPORT, VT     |
| 2011 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 100,000 FT <sup>2</sup>   | FLORENCE, VT    |
| 2011 | MISC PONDS                      | 60 MIL HDTPE   | 500,000 FT <sup>2</sup>   | EMPORIUM, PA    |

# **terrafix<sup>®</sup>**

## **environmental U.S.A. inc.**

P.O. Box 367, 34 Court Street Auburn, Maine 04212 U.S.A. Tel: (207) 786-6808 Fax: (207) 786-6835

### ***TWATCHAI GREENBERGER ~ TECHNICIAN/MASTER SEAMER***

#### ***INSTALLATION REFERENCES***

| <b>YEAR</b> | <b>PROJECT</b>     | <b>PRODUCT</b> | <b>QUANTITY</b>           | <b>LOCATION</b>     |
|-------------|--------------------|----------------|---------------------------|---------------------|
| 2008        | LANDFILL EXPANSION | 60 MIL HDTPE   | 250,000 FT <sup>2</sup>   | CAMPBELL, NY        |
| 2008        | LANDFILL EXPANSION | 60 MIL HDTPE   | 200,000 FT <sup>2</sup>   | ANGELICA, NY        |
| 2008        | LANDFILL CLOSURE   | 40 MIL HDTPE   | 250,000 FT <sup>2</sup>   | COLEBROOK, NH       |
| 2008        | LANDFILL EXPANSION | 60 MIL HDTPE   | 450,000 FT <sup>2</sup>   | BOURNE, MA          |
| 2009        | LANDFILL CLOSURE   | 40 MIL LLDTPPE | 700,000 FT <sup>2</sup>   | CAMPBELL, NY        |
| 2009        | LANDFILL EXPANSION | 60 MIL HDTPE   | 550,000 FT <sup>2</sup>   | NEWPORT, VT         |
| 2010        | LANDFILL EXPANSION | 60 MIL HDTPE   | 200,000 FT <sup>2</sup>   | ANGELICA, NY        |
| 2010        | LANDFILL CLOSURE   | 40 MIL HDTPE   | 200,000 FT <sup>2</sup>   | STOUGHTON, MA       |
| 2010        | MISC PONDS         | 40 MIL LLDPE   | 800,000 FT <sup>2</sup>   | WASHINGTON, PA      |
| 2010        | MISC PONDS         | 40 MIL HDPE    | 1,500,000 FT <sup>2</sup> | WILLIAMSPORT, PA    |
| 2011        | LANDFILL CLOSURE   | 60 MIL LLDTPPE | 1,000,000 FT <sup>2</sup> | SOUTH STRAFFORD, VT |
| 2011        | MISC PONDS         | 40 MIL LLDPE   | 600,000 FT <sup>2</sup>   | WASHINGTON, PA      |
| 2011        | MISC PONDS         | 40 MIL HDTPE   | 400,000 FT <sup>2</sup>   | KANE, PA            |

# terrafix<sup>®</sup>

## environmental U.S.A. inc.

P.O. Box 367, 34 Court Street Auburn, Maine 04212 U.S.A. Tel: (207) 786-6808 Fax: (207) 786-6835

### *LIONEL JACKSON ~ TECHNICIAN*

#### *INSTALLATION REFERENCES*

| YEAR | PROJECT                 | PRODUCT                              | QUANTITY                                           | LOCATION         |
|------|-------------------------|--------------------------------------|----------------------------------------------------|------------------|
| 2001 | LANDFILL CLOSURE        | 40 MIL LLDTPPE<br>60Z GEOCOMPOSITE   | 700,000 FT <sup>2</sup>                            | MONTPELIER, VT   |
| 2001 | LANDFILL CLOSURE        | 40 MIL LLDTPPE<br>60Z GEOCOMPOSITE   | 150,000 FT <sup>2</sup>                            | NEWBURY, VT      |
| 2001 | LANDFILL CLOSURE        | 60 MIL HDTPE                         | 160,000 FT <sup>2</sup>                            | PLATTSBURGH, NY  |
| 2001 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 400,000 FT <sup>2</sup>                            | CLAREMONT, NH    |
| 2001 | LANDFILL EXPANSION      | 100 MIL HDTPE                        | 1,000,000 FT <sup>2</sup>                          | WILLIAMSPORT, PA |
| 2002 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 1,800,000 FT <sup>2</sup>                          | WOBURN, MA       |
| 2002 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 450,000 FT <sup>2</sup>                            | AYER, MA         |
| 2002 | LANDFILL CLOSURE        | 40 MIL LLDTPPE                       | 200,000 FT <sup>2</sup>                            | PLYMOUTH, NH     |
| 2002 | WWTP LAGOON             | 40 MIL HDTPE                         | 120,000 FT <sup>2</sup>                            | BRENTWOOD, NH    |
| 2003 | LANDFILL CLOSURE        | 40 MIL LLDTPPE<br>60 MIL HDPE (COND) | 500,000 FT <sup>2</sup><br>100,000 FT <sup>2</sup> | JAMESTOWN, NY    |
| 2003 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 100,000 FT <sup>2</sup>                            | FITCHBURG, MA    |
| 2003 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 400,000 FT <sup>2</sup>                            | BROCKTON, MA     |
| 2003 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 300,000 FT <sup>2</sup>                            | NASHUA, NH       |
| 2003 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 350,000 FT <sup>2</sup>                            | READING, MA      |
| 2004 | LANDFILL CLOSURE (PH 2) | 40 MIL HDTPE                         | 800,000 FT <sup>2</sup>                            | READING, MA      |
| 2004 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 650,000 FT <sup>2</sup>                            | LEBANON, NH      |
| 2004 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 1,150,000 FT <sup>2</sup>                          | SENECA, NY       |
| 2005 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 400,000 FT <sup>2</sup>                            | SOUTHBRIDGE, MA  |
| 2005 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 700,000 FT <sup>2</sup>                            | NEWPORT, VT      |
| 2005 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 700,000 FT <sup>2</sup>                            | ORLEANS, MA      |
| 2005 | LANDFILL CLOSURE        | 40 MIL LLDTPPE                       | 300,000 FT <sup>2</sup>                            | WELLFLEET, MA    |
| 2006 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 500,000 FT <sup>2</sup>                            | PLATTSBURGH, NY  |
| 2006 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 350,000 FT <sup>2</sup>                            | BETHLEHEM, NH    |
| 2006 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 220,000 FT <sup>2</sup>                            | STOUGHTON, MA    |

|      |                                 |               |                           |                 |
|------|---------------------------------|---------------|---------------------------|-----------------|
| 2007 | LANDFILL CLOSURE                | 40 MIL LLDTPE | 250,000 FT <sup>2</sup>   | AUBURN, NY      |
| 2007 | LANDFILL EXPANSION              | 60 MIL HDTPE  | 400,000 FT <sup>2</sup>   | SOUTHBRIDGE, MA |
| 2007 | LANDFILL EXPANSION              | 60 MIL HDTPE  | 800,000 FT <sup>2</sup>   | STANLEY, NY     |
| 2007 | LANDFILL EXPANSION              | 60 MIL HDTPE  | 650,000 FT <sup>2</sup>   | NEWPORT, VT     |
| 2007 | LANDFILL CLOSURE                | 40 MIL HDTPE  | 300,000 FT <sup>2</sup>   | COLEBROOK, NH   |
| 2008 | LANDFILL CLOSURE                | 40 MIL HDTPE  | 750,000 FT <sup>2</sup>   | HARDWICK, MA    |
| 2008 | LANDFILL CLOSURE                | 40 MIL LLDTPE | 750,000 FT <sup>2</sup>   | FORT DRUM, NY   |
| 2008 | LANDFILL EXPANSION              | 60 MIL HDTPE  | 500,000 FT <sup>2</sup>   | CONSTABLE, NY   |
| 2008 | LANDFILL CLOSURE                | 40 MIL HDTPE  | 450,000 FT <sup>2</sup>   | CHARLTON, MA    |
| 2009 | LANDFILL CLOSURE                | 40 MIL HDTPE  | 400,000 FT <sup>2</sup>   | COLEBROOK, NH   |
| 2009 | LANDFILL EXPANSION              | 60 MIL HDTPE  | 240,000 FT <sup>2</sup>   | SOUTHBRIDGE, MA |
| 2009 | LANDFILL CLOSURE<br>(TEMPORARY) | 30 MIL HDPE   | 480,000 FT <sup>2</sup>   | BOURNE, MA      |
| 2010 | LANDFILL CLOSURE                | 40 MIL LLDTPE | 1,300,000 FT <sup>2</sup> | PLATTSBURGH, NY |
| 2010 | LANDFILL CLOSURE                | 40 MIL HDTPE  | 550,000 FT <sup>2</sup>   | WORCESTER, MA   |
| 2010 | LANDFILL EXPANSION              | 60 MIL HDTPE  | 700,000 FT <sup>2</sup>   | PLATTSBURGH, NY |
| 2010 | LANDFILL EXPANSION              | 60 MIL HDTPE  | 300,000 FT <sup>2</sup>   | NEWPORT, VT     |
| 2010 | LANDFILL CLOSURE                | 40 MIL HDTPE  | 230,000 FT <sup>2</sup>   | PLATTSBURGH, NY |
| 2011 | LANDFILL CLOSURE                | 40 MIL LLDTPE | 450,000 FT <sup>2</sup>   | PLATTSBURGH, NY |
| 2011 | LANDFILL EXPANSION              | 60 MIL HDTPE  | 400,000 FT <sup>2</sup>   | NEWPORT, VT     |
| 2011 | LANDFILL EXPANSION              | 60 MIL HDTPE  | 100,000 FT <sup>2</sup>   | FLORENCE, VT    |
| 2011 | MISC PONDS                      | 60 MIL HDTPE  | 500,000 FT <sup>2</sup>   | EMPORIUM, PA    |

# terrafix<sup>®</sup>

## environmental U.S.A. inc.

P.O. Box 367, 34 Court Street Auburn, Maine 04212 U.S.A. Tel: (207) 786-6808 Fax: (207) 786-6835

### *VIENGSAVANH KETSATHA ~ TECHNICIAN*

#### *INSTALLATION REFERENCES*

| YEAR | PROJECT                 | PRODUCT                              | QUANTITY                                           | LOCATION         |
|------|-------------------------|--------------------------------------|----------------------------------------------------|------------------|
| 2001 | LANDFILL CLOSURE        | 40 MIL LLDTPPE<br>60Z GEOCOMPOSITE   | 700,000 FT <sup>2</sup>                            | MONTPELIER, VT   |
| 2001 | LANDFILL CLOSURE        | 40 MIL LLDTPPE<br>60Z GEOCOMPOSITE   | 150,000 FT <sup>2</sup>                            | NEWBURY, VT      |
| 2001 | LANDFILL CLOSURE        | 60 MIL HDTPE                         | 160,000 FT <sup>2</sup>                            | PLATTSBURGH, NY  |
| 2001 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 400,000 FT <sup>2</sup>                            | CLAREMONT, NH    |
| 2001 | LANDFILL EXPANSION      | 100 MIL HDTPE                        | 1,000,000 FT <sup>2</sup>                          | WILLIAMSPORT, PA |
| 2002 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 1,800,000 FT <sup>2</sup>                          | WOBURN, MA       |
| 2002 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 450,000 FT <sup>2</sup>                            | AYER, MA         |
| 2002 | LANDFILL CLOSURE        | 40 MIL LLDTPPE                       | 200,000 FT <sup>2</sup>                            | PLYMOUTH, NH     |
| 2002 | WWTP LAGOON             | 40 MIL HDTPE                         | 120,000 FT <sup>2</sup>                            | BRENTWOOD, NH    |
| 2003 | LANDFILL CLOSURE        | 40 MIL LLDTPPE<br>60 MIL HDPE (COND) | 500,000 FT <sup>2</sup><br>100,000 FT <sup>2</sup> | JAMESTOWN, NY    |
| 2003 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 100,000 FT <sup>2</sup>                            | FITCHBURG, MA    |
| 2003 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 400,000 FT <sup>2</sup>                            | BROCKTON, MA     |
| 2003 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 300,000 FT <sup>2</sup>                            | NASHUA, NH       |
| 2003 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 350,000 FT <sup>2</sup>                            | READING, MA      |
| 2004 | LANDFILL CLOSURE (PH 2) | 40 MIL HDTPE                         | 800,000 FT <sup>2</sup>                            | READING, MA      |
| 2004 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 650,000 FT <sup>2</sup>                            | LEBANON, NH      |
| 2004 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 1,150,000 FT <sup>2</sup>                          | SENECA, NY       |
| 2005 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 400,000 FT <sup>2</sup>                            | SOUTHBRIDGE, MA  |
| 2005 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 700,000 FT <sup>2</sup>                            | NEWPORT, VT      |
| 2005 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 700,000 FT <sup>2</sup>                            | ORLEANS, MA      |
| 2005 | LANDFILL CLOSURE        | 40 MIL LLDTPPE                       | 300,000 FT <sup>2</sup>                            | WELLFLEET, MA    |
| 2006 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 500,000 FT <sup>2</sup>                            | PLATTSBURGH, NY  |
| 2006 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 350,000 FT <sup>2</sup>                            | BETHLEHEM, NH    |
| 2007 | LANDFILL CLOSURE        | 40 MIL LLDTPPE                       | 250,000 FT <sup>2</sup>                            | AUBURN, NY       |
| 2007 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 400,000 FT <sup>2</sup>                            | SOUTHBRIDGE, MA  |
| 2007 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 800,000 FT <sup>2</sup>                            | STANLEY, NY      |



|      |                                 |                |                           |                 |
|------|---------------------------------|----------------|---------------------------|-----------------|
| 2007 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 650,000 FT <sup>2</sup>   | NEWPORT, VT     |
| 2007 | LANDFILL CLOSURE                | 40 MIL HDTPE   | 300,000 FT <sup>2</sup>   | COLEBROOK, NH   |
| 2008 | LANDFILL CLOSURE                | 40 MIL HDTPE   | 750,000 FT <sup>2</sup>   | HARDWICK, MA    |
| 2008 | LANDFILL CLOSURE                | 40 MIL LLDTPPE | 750,000 FT <sup>2</sup>   | FORT DRUM, NY   |
| 2008 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 500,000 FT <sup>2</sup>   | CONSTABLE, NY   |
| 2008 | LANDFILL CLOSURE                | 40 MIL HDTPE   | 450,000 FT <sup>2</sup>   | CHARLTON, MA    |
| 2009 | LANDFILL CLOSURE                | 40 MIL HDTPE   | 400,000 FT <sup>2</sup>   | COLEBROOK, NH   |
| 2009 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 240,000 FT <sup>2</sup>   | SOUTHBRIDGE, MA |
| 2009 | LANDFILL CLOSURE<br>(TEMPORARY) | 30 MIL HDPE    | 480,000 FT <sup>2</sup>   | BOURNE, MA      |
| 2010 | LANDFILL CLOSURE                | 40 MIL LLDTPPE | 1,300,000 FT <sup>2</sup> | PLATTSBURGH, NY |
| 2010 | LANDFILL CLOSURE                | 40 MIL HDTPE   | 550,000 FT <sup>2</sup>   | WORCESTER, MA   |
| 2010 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 700,000 FT <sup>2</sup>   | PLATTSBURGH, NY |
| 2010 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 300,000 FT <sup>2</sup>   | NEWPORT, VT     |
| 2010 | LANDFILL CLOSURE                | 40 MIL HDTPE   | 230,000 FT <sup>2</sup>   | PLATTSBURGH, NY |
| 2011 | LANDFILL CLOSURE                | 40 MIL LLDTPPE | 450,000 FT <sup>2</sup>   | PLATTSBURGH, NY |
| 2011 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 400,000 FT <sup>2</sup>   | NEWPORT, VT     |
| 2011 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 100,000 FT <sup>2</sup>   | FLORENCE, VT    |
| 2011 | MISC PONDS                      | 60 MIL HDTPE   | 500,000 FT <sup>2</sup>   | EMPORIUM, PA    |

# **terrafix<sup>®</sup>**

## **environmental U.S.A. inc.**

P.O. Box 367, 34 Court Street Auburn, Maine 04212 U.S.A. Tel: (207) 786-6808 Fax: (207) 786-6835

### ***THONGSAY KHAMSA DA ~ TECHNICIAN***

#### ***INSTALLATION REFERENCES***

#### **GEOMEMBRANE PROJECTS**

| <b>YEAR</b> | <b>PROJECT</b>     | <b>PRODUCT</b> | <b>QUANTITY</b>           | <b>LOCATION</b>     |
|-------------|--------------------|----------------|---------------------------|---------------------|
| 2005        | LANDFILL EXPANSION | 60 MIL HDTPE   | 400,000 FT <sup>2</sup>   | SOUTHBRIDGE, MA     |
| 2005        | LANDFILL EXPANSION | 60 MIL HDTPE   | 700,000 FT <sup>2</sup>   | NEWPORT, VT         |
| 2005        | LANDFILL CLOSURE   | 40 MIL HDTPE   | 700,000 FT <sup>2</sup>   | ORLEANS, MA         |
| 2005        | LANDFILL CLOSURE   | 40 MIL LLDTPE  | 300,000 FT <sup>2</sup>   | WELLFLEET, MA       |
| 2006        | LANDFILL EXPANSION | 60 MIL HDTPE   | 500,000 FT <sup>2</sup>   | PLATTSBURGH, NY     |
| 2006        | LANDFILL EXPANSION | 60 MIL HDTPE   | 350,000 FT <sup>2</sup>   | BETHLEHEM, NH       |
| 2007        | LANDFILL CLOSURE   | 40 MIL LLDTPE  | 250,000 FT <sup>2</sup>   | AUBURN, NY          |
| 2007        | LANDFILL EXPANSION | 60 MIL HDTPE   | 400,000 FT <sup>2</sup>   | SOUTHBRIDGE, MA     |
| 2007        | LANDFILL EXPANSION | 60 MIL HDTPE   | 800,000 FT <sup>2</sup>   | STANLEY, NY         |
| 2007        | LANDFILL EXPANSION | 60 MIL HDTPE   | 650,000 FT <sup>2</sup>   | NEWPORT, VT         |
| 2007        | LANDFILL CLOSURE   | 40 MIL HDTPE   | 300,000 FT <sup>2</sup>   | COLEBROOK, NH       |
| 2011        | LANDFILL CLOSURE   | 60 MIL LLDTPE  | 1,000,000 FT <sup>2</sup> | SOUTH STRAFFORD, VT |
| 2011        | MISC PONDS         | 40 MIL LLDPE   | 600,000 FT <sup>2</sup>   | WASHINGTON, PA      |
| 2011        | MISC PONDS         | 40 MIL HDTPE   | 400,000 FT <sup>2</sup>   | KANE, PA            |

# terrafix<sup>®</sup>

## environmental U.S.A. inc.

P.O. Box 367, 34 Court Street Auburn, Maine 04212 U.S.A. Tel: (207) 786-6808 Fax: (207) 786-6835

### *SCOTT LIM ~ TECHNICIAN*

#### *INSTALLATION REFERENCES*

| YEAR | PROJECT            | PRODUCT                    | QUANTITY                                         | LOCATION        |
|------|--------------------|----------------------------|--------------------------------------------------|-----------------|
| 2004 | LANDFILL CLOSURE   | 40 MIL LLDTPPE             | 500,000 FT <sup>2</sup>                          | NEW BEDFORD, MA |
| 2004 | LANDFILL CLOSURE   | 40 MIL HDTPE               | 360,000 FT <sup>2</sup>                          | CARVER, MA      |
| 2004 | LANDFILL CLOSURE   | 40 MIL LLDTPPE             | 850,000 FT <sup>2</sup>                          | CHEEKTOWAGA, NY |
| 2005 | LANDFILL EXPANSION | 60 MIL HDTPE               | 1,200,000 FT <sup>2</sup>                        | SENECA, NY      |
| 2005 | POND               | 40 MIL HDTPE               | 120,000 FT <sup>2</sup>                          | HOLLIS, ME      |
| 2005 | LANDFILL EXPANSION | 60 MIL HDTPE               | 200,000 FT <sup>2</sup>                          | SPRINGFIELD, MA |
| 2006 | LANDFILL CLOSURE   | 40 MIL HDTPE               | 700,000 FT <sup>2</sup>                          | BROCKTON, MA    |
| 2006 | LANDFILL EXPANSION | 80 MIL HDTPE               | 150,000 FT <sup>2</sup>                          | FRANKLIN, NH    |
| 2006 | LANDFILL CLOSURE   | 40 MIL HDTPE               | 400,000 FT <sup>2</sup>                          | SOUTHBRIDGE, MA |
| 2006 | LANDFILL EXPANSION | 60 MIL HDTPE               | 600,000 FT <sup>2</sup>                          | ELMIRA, NH      |
| 2006 | LANDFILL CLOSURE   | 40 MIL HDTPE               | 120,000 FT <sup>2</sup>                          | MILLVILLE, MA   |
| 2007 | LANDFILL EXPANSION | 60 MIL HDTPE               | 280,000 FT <sup>2</sup>                          | CAMPBELL, NY    |
| 2007 | LANDFILL EXPANSION | 60 MIL HDTPE               | 850,000 FT <sup>2</sup>                          | ANGELICA, NY    |
| 2007 | LANDFILL EXPANSION | 60 MIL HDPE<br>80 MIL HDPE | 60,000 FT <sup>2</sup><br>60,000 FT <sup>2</sup> | NANTUCKET, MA   |
| 2008 | LANDFILL EXPANSION | 60 MIL HDTPE               | 230,000 FT <sup>2</sup>                          | BETHLEHEM, NH   |
| 2008 | LANDFILL EXPANSION | 60 MIL HDTPE               | 1,300,000 FT <sup>2</sup>                        | NASHUA, NH      |
| 2009 | LANDFILL EXPANSION | 60 MIL HDTPE               | 700,000 FT <sup>2</sup>                          | SENECA, NY      |
| 2010 | LANDFILL EXPANSION | 60 MIL HDTPE               | 530,000 FT <sup>2</sup>                          | SENECA, NY      |
| 2010 | LANDFILL EXPANSION | 60 MIL HDTPE               | 420,000 FT <sup>2</sup>                          | ELMIRA, NY      |
| 2010 | LANDFILL CLOSURE   | 40 MIL HDTPE               | 400,000 FT <sup>2</sup>                          | SOUTHBRIDGE, MA |
| 2010 | MISC PONDS         | 40 MIL LLDPE               | 2,200,000 FT <sup>2</sup>                        | WASHINGTON, PA  |
| 2011 | LANDFILL EXPANSION | 60 MIL HDTPE               | 550,000 FT <sup>2</sup>                          | ANGELICA, NY    |
| 2011 | LANDFILL EXPANSION | 60 MIL HDTPE               | 400,000 FT <sup>2</sup>                          | CAMPBELL, NY    |
| 2011 | LANDFILL EXPANSION | 60 MIL HDTPE               | 220,000 FT <sup>2</sup>                          | MT JEWETT, PA   |

|      |                    |              |                         |                 |
|------|--------------------|--------------|-------------------------|-----------------|
| 2011 | LANDFILL EXPANSION | 60 MIL HDTPE | 200,000 FT <sup>2</sup> | SOUTHBRIDGE, MA |
| 2011 | MISC PONDS         | 40 MIL LLDPE | 600,000 FT <sup>2</sup> | WASHINGTON, PA  |
| 2011 | MISC PONDS         | 40 MIL HDTPE | 400,000 FT <sup>2</sup> | KANE, PA        |

# **terrafix<sup>®</sup>**

## **environmental U.S.A. inc.**

P.O. Box 367, 34 Court Street Auburn, Maine 04212 U.S.A. Tel: (207) 786-6808 Fax: (207) 786-6835

### ***SAENGPHEET MAHATHAY ~ TECHNICIAN***

#### ***INSTALLATION REFERENCES***

#### **GEOMEMBRANE PROJECTS**

| <b>YEAR</b> | <b>PROJECT</b>     | <b>PRODUCT</b> | <b>QUANTITY</b>           | <b>LOCATION</b>     |
|-------------|--------------------|----------------|---------------------------|---------------------|
| 2004        | LANDFILL EXPANSION | 60 MIL HDTPE   | 1,150,000 FT <sup>2</sup> | SENECA, NY          |
| 2005        | LANDFILL EXPANSION | 60 MIL HDTPE   | 400,000 FT <sup>2</sup>   | SOUTHBRIDGE, MA     |
| 2005        | LANDFILL EXPANSION | 60 MIL HDTPE   | 700,000 FT <sup>2</sup>   | NEWPORT, VT         |
| 2005        | LANDFILL CLOSURE   | 40 MIL HDTPE   | 700,000 FT <sup>2</sup>   | ORLEANS, MA         |
| 2005        | LANDFILL CLOSURE   | 40 MIL LLDTPPE | 300,000 FT <sup>2</sup>   | WELLFLEET, MA       |
| 2006        | LANDFILL EXPANSION | 60 MIL HDTPE   | 500,000 FT <sup>2</sup>   | PLATTSBURGH, NY     |
| 2006        | LANDFILL EXPANSION | 60 MIL HDTPE   | 350,000 FT <sup>2</sup>   | BETHLEHEM, NH       |
| 2007        | LANDFILL CLOSURE   | 40 MIL LLDTPPE | 250,000 FT <sup>2</sup>   | AUBURN, NY          |
| 2007        | LANDFILL EXPANSION | 60 MIL HDTPE   | 400,000 FT <sup>2</sup>   | SOUTHBRIDGE, MA     |
| 2007        | LANDFILL EXPANSION | 60 MIL HDTPE   | 800,000 FT <sup>2</sup>   | STANLEY, NY         |
| 2007        | LANDFILL EXPANSION | 60 MIL HDTPE   | 650,000 FT <sup>2</sup>   | NEWPORT, VT         |
| 2007        | LANDFILL CLOSURE   | 40 MIL HDTPE   | 300,000 FT <sup>2</sup>   | COLEBROOK, NH       |
| 2011        | LANDFILL CLOSURE   | 60 MIL LLDTPPE | 1,000,000 FT <sup>2</sup> | SOUTH STRAFFORD, VT |
| 2011        | MISC PONDS         | 40 MIL LLDPE   | 600,000 FT <sup>2</sup>   | WASHINGTON, PA      |
| 2011        | MISC PONDS         | 40 MIL HDTPE   | 400,000 FT <sup>2</sup>   | KANE, PA            |

# terrafix<sup>®</sup>

## environmental U.S.A. inc.

P.O. Box 367, 34 Court Street Auburn, Maine 04212 U.S.A. Tel: (207) 786-6808 Fax: (207) 786-6835

### *YORNG NAY ~ TECHNICIAN*

#### *INSTALLATION REFERENCES*

| YEAR | PROJECT            | PRODUCT                    | QUANTITY                                         | LOCATION        |
|------|--------------------|----------------------------|--------------------------------------------------|-----------------|
| 2004 | LANDFILL CLOSURE   | 40 MIL LLDTPPE             | 500,000 FT <sup>2</sup>                          | NEW BEDFORD, MA |
| 2004 | LANDFILL CLOSURE   | 40 MIL HDTPE               | 360,000 FT <sup>2</sup>                          | CARVER, MA      |
| 2004 | LANDFILL CLOSURE   | 40 MIL LLDTPPE             | 850,000 FT <sup>2</sup>                          | CHEEKTOWAGA, NY |
| 2005 | LANDFILL EXPANSION | 60 MIL HDTPE               | 1,200,000 FT <sup>2</sup>                        | SENECA, NY      |
| 2005 | POND               | 40 MIL HDTPE               | 120,000 FT <sup>2</sup>                          | HOLLIS, ME      |
| 2005 | LANDFILL EXPANSION | 60 MIL HDTPE               | 200,000 FT <sup>2</sup>                          | SPRINGFIELD, MA |
| 2006 | LANDFILL CLOSURE   | 40 MIL HDTPE               | 700,000 FT <sup>2</sup>                          | BROCKTON, MA    |
| 2006 | LANDFILL EXPANSION | 80 MIL HDTPE               | 150,000 FT <sup>2</sup>                          | FRANKLIN, NH    |
| 2006 | LANDFILL CLOSURE   | 40 MIL HDTPE               | 400,000 FT <sup>2</sup>                          | SOUTHBRIDGE, MA |
| 2006 | LANDFILL EXPANSION | 60 MIL HDTPE               | 600,000 FT <sup>2</sup>                          | ELMIRA, NH      |
| 2006 | LANDFILL CLOSURE   | 40 MIL HDTPE               | 120,000 FT <sup>2</sup>                          | MILLVILLE, MA   |
| 2007 | LANDFILL EXPANSION | 60 MIL HDTPE               | 280,000 FT <sup>2</sup>                          | CAMPBELL, NY    |
| 2007 | LANDFILL EXPANSION | 60 MIL HDTPE               | 850,000 FT <sup>2</sup>                          | ANGELICA, NY    |
| 2007 | LANDFILL EXPANSION | 60 MIL HDPE<br>80 MIL HDPE | 60,000 FT <sup>2</sup><br>60,000 FT <sup>2</sup> | NANTUCKET, MA   |
| 2008 | LANDFILL EXPANSION | 60 MIL HDTPE               | 230,000 FT <sup>2</sup>                          | BETHLEHEM, NH   |
| 2008 | LANDFILL EXPANSION | 60 MIL HDTPE               | 1,300,000 FT <sup>2</sup>                        | NASHUA, NH      |
| 2009 | LANDFILL EXPANSION | 60 MIL HDTPE               | 700,000 FT <sup>2</sup>                          | SENECA, NY      |
| 2010 | LANDFILL EXPANSION | 60 MIL HDTPE               | 530,000 FT <sup>2</sup>                          | SENECA, NY      |
| 2010 | LANDFILL EXPANSION | 60 MIL HDTPE               | 420,000 FT <sup>2</sup>                          | ELMIRA, NY      |
| 2010 | LANDFILL CLOSURE   | 40 MIL HDTPE               | 400,000 FT <sup>2</sup>                          | SOUTHBRIDGE, MA |
| 2010 | MISC PONDS         | 40 MIL LLDPE               | 2,200,000 FT <sup>2</sup>                        | WASHINGTON, PA  |
| 2011 | LANDFILL EXPANSION | 60 MIL HDTPE               | 550,000 FT <sup>2</sup>                          | ANGELICA, NY    |
| 2011 | LANDFILL EXPANSION | 60 MIL HDTPE               | 400,000 FT <sup>2</sup>                          | CAMPBELL, NY    |
| 2011 | LANDFILL EXPANSION | 60 MIL HDTPE               | 220,000 FT <sup>2</sup>                          | MT JEWETT, PA   |



|      |                    |              |                         |                 |
|------|--------------------|--------------|-------------------------|-----------------|
| 2011 | LANDFILL EXPANSION | 60 MIL HDTPE | 200,000 FT <sup>2</sup> | SOUTHBRIDGE, MA |
| 2011 | MISC PONDS         | 40 MIL LLDPE | 600,000 FT <sup>2</sup> | WASHINGTON, PA  |
| 2011 | MISC PONDS         | 40 MIL HDTPE | 400,000 FT <sup>2</sup> | KANE, PA        |

| <b>TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR<br/>MANUFACTURER'S CERTIFICATES OF COMPLIANCE</b><br><i>(Read instructions on reverse side prior to initiating this form)</i> |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         | <b>DATE</b><br>October 1, 2012               |                                      | <b>TRANSMITTAL NO:</b><br><b>007</b>                                                                                                                         |                                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| <b>SECTION I - REQUEST FOR APPROVAL OF THE FOLLOWING ITEMS</b> (This section will be initiated by the Contractor)                                                                                   |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
| <b>TO:</b><br>Zachary Mothershed - Project Engineer<br>US Army Corps of Engineers<br>696 Virginia Road<br>Concord, MA 01742-2751                                                                    |                                                                                 |                                                                                                  | <b>FROM:</b><br>Sovereign Consulting, Inc.<br>16 Chestnut Street, Suite 520<br>Foxboro, MA 02035                                                  |                                                                                                                                                                                                                                                                                                                         | <b>CONTRACT NO:</b><br>W912WJ-10-D-0003-0002 |                                      | <b>CHECK ONE:</b><br><input checked="" type="checkbox"/> THIS IS A NEW TRANSMITTAL<br><input type="checkbox"/> THIS IS A RESUBMITTAL OF<br>TRANSMITTAL _____ |                                |
| SPECIFICATION SECTION NO: (Cover only one section with each transmittal)<br><div style="text-align: center; font-weight: bold; font-size: 1.2em;">02300, 02736</div>                                |                                                                                 |                                                                                                  | PROJECT TITLE AND LOCATION:<br><div style="text-align: center;"> <b>Shepley's Hill Landfill<br/>Barrier Wall<br/>Devens, Massachusetts</b> </div> |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
| ITEM<br>NO.<br><br>a.                                                                                                                                                                               | DESCRIPTION OF ITEM SUBMITTED<br><br>b.<br><br>(Type, size, model number, etc.) | MFG. OR CONTR. CAT.<br>CURVE DRAWING OR<br>BROCHURE NO.<br><br>c.<br><br>(See instruction No. 8) | NO. OF<br>COPIES<br><br>d.                                                                                                                        | CONTRACT REFERENCE<br>DOCUMENT                                                                                                                                                                                                                                                                                          |                                              | FOR CONTRACTOR<br>USE CODE<br><br>g. | VARIATION<br><br>(See instruction<br>No. 6)<br><br>h.                                                                                                        | FORCE<br>USE<br>CODE<br><br>i. |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   | SPEC. PARA.<br>NO.<br><br>e.                                                                                                                                                                                                                                                                                            | DRAWING<br>SHEET NO.<br><br>f.               |                                      |                                                                                                                                                              |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
| 1                                                                                                                                                                                                   | Chemical Fusion Agent - Geomembrane                                             | N/A                                                                                              | 1                                                                                                                                                 | 1.4                                                                                                                                                                                                                                                                                                                     | C-302, E, F                                  | FIO                                  | ~                                                                                                                                                            |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
| REMARKS                                                                                                                                                                                             |                                                                                 |                                                                                                  |                                                                                                                                                   | I certify that the above submitted items have been reviewed<br>in detail and correct and in strict conformance with the<br>contract drawings and specifications except as otherwise stated.<br><br><div style="text-align: right;"> <u>Thomas B. Hevner</u> <br/>         NAME AND SIGNATURE OF CONTRACTOR       </div> |                                              |                                      |                                                                                                                                                              |                                |
| <b>SECTION II - APPROVAL ACTION</b>                                                                                                                                                                 |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
| ENCLOSURES RETURNED (List by Item No.)                                                                                                                                                              |                                                                                 |                                                                                                  | NAME, TITLE AND SIGNATURE OF APPROVING AUTHORITY                                                                                                  |                                                                                                                                                                                                                                                                                                                         |                                              |                                      | DATE                                                                                                                                                         |                                |



**RH Products Co., Inc.**  
Specialty Adhesives



[Home](#) | [About Us](#) | [Distributor Information](#) | [Contact Us](#)

**PRODUCTS**

**HH-66 Vinyl Cement**

**S-18 Neoprene Cement**

**XL-8 Neoprene Cement**

**Duall-88 Neoprene Cement**

**Clear-Tite-HHR Neoprene Cement**

**HH-66 Vinyl Cement "More durable than the fabric itself"**

**HH-66 Vinyl Cement** is a superior quality, fast drying adhesive. It is used extensively for bonding vinyl coated and vinyl laminated fabrics to themselves or to various materials. HH-66 is also used to bond urethanes, vinyl foams and films, rigid plastics, synthetic fabrics, wood, leather, and metals. It is outstanding for sealing or waterproofing stitched seams.

HH-66 dries quickly with a very strong, yet flexible bond. It is not affected by weather and temperature extremes, and is highly resistant to oil, fuel, grease, and many other chemicals.

Application is by brush, roller, or squeeze bottle. Dried films may be reactivated to the tacky state by high heat or solvent.

**HH-66 is used widely in the manufacture and repair of:**

- |               |                      |                       |                       |
|---------------|----------------------|-----------------------|-----------------------|
| • Tarpaulins  | • Inflatables        | • Sporting Goods      | • Footwear            |
| • Pool Covers | • Flexible Signs     | • Protective Coatings | • Flexible Hose       |
| • Furniture   | • Mats               | • Liners              | • Industrial Curtains |
| • Oil Booms   | • Tension Structures | • Awnings             | • Dock Seals          |
| • Domes       | • Furniture          | • Trailer covers      |                       |



Please [contact us](#) for the distributor nearest you.

**Technical Data:**

|                    |                           |
|--------------------|---------------------------|
| Base:              | Thermoplasticelastomer    |
| Color:             | Clear                     |
| Solvent:           | MEK-Toluene-Acetone Blend |
| Viscosity:         | Medium, 1100-1300 cps.    |
| Application:       | Brush or Roller           |
| Solids:            | 15% ± 1% (Approximately)  |
| Net Weight:        | 8 Lbs. (Approximately)    |
| Temperature Range: | -30° to 180°F.            |
| Tack Life:         | 2 – 5 minutes             |
| Shelf Life:        | 18 months or longer       |
| Flash Point:       | 22° F.                    |

**Precautions:**

**Danger – Flammable Mixture.**  
**Do Not Use Near Fire or Flame.**  
**Use with Adequate Ventilation.**  
**Vapor May Cause Flash Fire.**  
**Avoid Prolonged Breathing of Vapor and Contact With Eyes and Skin.**

RH Products Co., Inc. • 308 Old High Street, Acton, MA 01720 • Phone: 978-897-8000  
www.RHAdhesives.com • E-mail: [Sales@RHAdhesives.com](mailto:Sales@RHAdhesives.com) • [Privacy Policy](#) • [Site Map](#)

Site created by [ThomasNet Web Solutions](#)

# MATERIAL SAFETY DATA SHEET

NSN: 8040013401575

Manufacturer's CAGE: 25592

Part No. Indicator: C

Part Number/Trade Name: HH-66 VINYL CEMENT

## General Information

Company's Name: R-H PRODUCTS CO INC

Company's Street: 308 OLD HIGH ST

Company's P. O. Box: 2301

Company's City: ACTON

Company's State: MA

Company's Country: US

Company's Zip Code: 01720

Company's Emerg Ph #: 800-535-5053

Company's Info Ph #: 508-897-8000

Record No. For Safety Entry: 002

Tot Safety Entries This Stk#: 002

Status: SMJ

Date MSDS Prepared: 03OCT94

Safety Data Review Date: 18OCT96

MSDS Serial Number: CCQVK

## Ingredients/Identity Information

Proprietary: NO

Ingredient: 2-BUTANONE; (METHYL ETHYL KETONE) (SARA 313) (CERCLA)

Ingredient Sequence Number: 01

Percent: 52

NIOSH (RTECS) Number: EL6475000

CAS Number: 78-93-3

OSHA PEL: 200 PPM

ACGIH TLV: 200 PPM; 300 STEL

Proprietary: NO

Ingredient: ACETONE (SARA 313) (CERCLA) BP: 132F,56C

Ingredient Sequence Number: 02

Percent: 18

NIOSH (RTECS) Number: AL3150000

CAS Number: 67-64-1

OSHA PEL: 1000 PPM

ACGIH TLV: 750 PPM; 1000 STEL

Proprietary: NO

Ingredient: TOLUENE (SARA 313) (CERCLA)

Ingredient Sequence Number: 03  
Percent: 15  
NIOSH (RTECS) Number: XS5250000  
CAS Number: 108-88-3  
OSHA PEL: 200 PPM  
ACGIH TLV: 50 PPM, S

=====

Physical/Chemical Characteristics

=====

Appearance And Odor: CLEAR; FRAGRANT MINT-LIKE ODOR, SHARP.  
Boiling Point: 132F,56C  
Vapor Pressure (MM Hg/70 F): 180 @ 68F  
Vapor Density (Air=1): HVR/AIR  
Specific Gravity: SUPDAT  
Evaporation Rate And Ref: SLOWER (BUTYL ACETATE=1)  
Solubility In Water: INSOLUBLE

=====

Fire and Explosion Hazard Data

=====

Flash Point: 6F,-14C  
Flash Point Method: TCC  
Lower Explosive Limit: 1%  
Upper Explosive Limit: 12%  
Extinguishing Media: FOAM, DRY CHEMICAL, CARBON DIOXIDE.  
Special Fire Fighting Proc: USE NIOSH APPROVED SCBA AND FULL PROTECTIVE EQUIPMENT (FP N).  
Unusual Fire And Expl Hazrds: EXTREMELY FLAMMABLE. OVERHEATED, CLOSED CONTAINER NEAR TO FIRE COULD EXPLODE DUE TO PRESSURE BUILDUP.

=====

Reactivity Data

=====

Stability: YES  
Cond To Avoid (Stability): NOT APPLICABLE.  
Materials To Avoid: STRONG OXIDIZING AGENTS.  
Hazardous Decomp Products: CARBON DIOXIDE AND CARBON MONOXIDE WHEN SUBJECTED TO FLAMES OR EXCESSIVE HEAT.  
Hazardous Poly Occur: NO  
Conditions To Avoid (Poly): NOT RELEVANT

=====

Health Hazard Data

=====

LD50-LC50 Mixture: NONE SPECIFIED BY MANUFACTURER.  
Route Of Entry - Inhalation: YES  
Route Of Entry - Skin: YES  
Route Of Entry - Ingestion: YES  
Health Haz Acute And Chronic: TOLUENE APPEARS ON THE NAVY LIST OF OCCUP



CHEM REPRO HAZS. SEEK CONSULTATION FROM APPROP HLTH PROFESSIONALS CONCERNING LATEST HAZ LIST INFO & SAFE HNDLG & EXPOS INFO (FP N). EYES: LIQ MILDLY IRRIT. OVEREXP MAY ALSO CAUSE IRRIT. REDNESS, TEARING & SWELLING. SKIN: DRYNESS OF SKIN INCLUDING CRACKING. (EFTS OF OVEREXP)

Carcinogenicity - NTP: NO

Carcinogenicity - IARC: NO

Carcinogenicity - OSHA: NO

Explanation Carcinogenicity: NOT RELEVANT

Signs/Symptoms Of Overexp: HLTH HAZ: PRLNGD CNTCT CAN CAUSE DEFATTING & POSS DERMATITIS. INHAL: OVEREXP MAY CAUSE IRRIT TO RESP SYS INCLUDING DIZZINESS, HEADACHE, NAUSEA & LT HEAD. EXTREME OVEREXP TO VAPS COULD RESULT

IN CNS, LIVER & KIDNEY DAMAGE. INGEST: MAY CAUSE GI IRRIT. ASPIRATION INTO LUNGS AS RESULT OF VOMITING MAY CAUSE LUNG DAMAGE.

Med Cond Aggravated By Exp: SKIN:PRLNGD CNTCT WILL DEFAT SKIN & CAUSE DERM. INHAL:EXTREME OVEREXP OF TOLUENE VAPS MAY CAUSE NERVS SYS DMG. INGEST: NAUS, VOMIT & DIARR. ASPIR INTO LUNGS AS RSLT OF VOMIT MAY CAUSE LUNG DMG.

Emergency/First Aid Proc: EYES: FLUSH IMMEDIATELY WITH WATER FOR AT LEAST 15 MINUTES. CALL MD. SKIN: WASH AREA WITH SOAP AND WATER. INHAL: MOVE AFFECTED PERSON TO FRESH AIR AT ONCE. RESTORE BREATHING. CALL MD IF DIFFICULTIES PERSIST. INGEST: DO NOT INDUCE VOMITING. CALL MD. GIVE WATER TO VICTIM. IF VOMITING OCCURS, PREVENT ASPIRATION INTO LUNGS.

---

#### Precautions for Safe Handling and Use

---

Steps If Matl Released/Spill: EXTINGUISH ALL SOURCES OF IGNITION IN AREA. COLLECT SPILLED MATERIAL AND PLACE IN A CLOSED CONTAINER FOR DISPOSAL OR SALVAGE.

Neutralizing Agent: NONE SPECIFIED BY MANUFACTURER.

Waste Disposal Method: DISPOSE IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS. EPA HAZARDOUS WASTE NUMBER: D035 (IGNITABLE).

Precautions-Handling/Storing: KEEP AWAY FROM HEAT, OPEN FLAMES & SPARKS.

USE & STORE WITH ADEQUATE VENTILATION TO PREVENT VAPOR BUILDUP. VAPORS RELEASED BY PROD CAN EASILY IGNITE.

Other Precautions: AVOID CONTACT WITH SKIN AND EYES. AVOID PROLONGED BREATHING OF VAPORS. KEEP CONTAINER CLOSED WHEN NOT IN USE. KEEP OUT OF REACH OF CHILDREN.

---

#### Control Measures

---

Respiratory Protection: IF EXPOSURE EXCEEDS OCCUPATIONAL EXPOSURE LIMITS, USE A NIOSH APPROVED RESPIRATOR TO PREVENT OVEREXPOSURE. PER 29 CFR 1910.134. NIOSH APPROVED CCROV OR SA TYPES RECOMMENDED.

Ventilation: LOC EXHST & MECH (GEN) SHOULD BE USED TO MAINTAIN EXPOS BELOW TLV(S). EXPLO PROOF VENT MAY BE REQD TO CTL VAP CONCS.

Protective Gloves: IMPERVIOUS GLOVES (FP N).  
Eye Protection: ANSI APPRVD CHEM WORKERS GOGGLES (FP N).  
Other Protective Equipment: ANSI APPROVED EYE WASH & DELUGE SHOWER (FP N).  
WORK APRON TO AVOID CONTACT WITH PERSONAL CLOTHING AND SKIN.  
Work Hygienic Practices: KEEP AREA CLEAN. WASH HANDS THOROUGHLY AFTER  
WORKING WITH PRODUCT.  
Suppl. Safety & Health Data: SPEC GRAV: 0.78-0.88 (H\*2O=1).

=====

Transportation Data

=====

Trans Data Review Date: 97090  
DOT PSN Code: AFR  
DOT Proper Shipping Name: ADHESIVES,  
DOT Class: 3  
DOT ID Number: UN1133  
DOT Pack Group: II  
DOT Label: FLAMMABLE LIQUID  
IMO PSN Code: AIH  
IMO Proper Shipping Name: ADHESIVES,  
IMO Regulations Page Number: 3174  
IMO UN Number: 1133  
IMO UN Class: 3.2  
IMO Subsidiary Risk Label: -  
IATA PSN Code: AKY  
IATA UN ID Number: 1133  
IATA Proper Shipping Name: ADHESIVES  
IATA UN Class: 3  
IATA Label: FLAMMABLE LIQUID  
AFI PSN Code: AKY  
AFI Prop. Shipping Name: ADHESIVES  
AFI Class: 3  
AFI ID Number: UN1133  
AFI Pack Group: II  
AFI Basic Pac Ref: A7.3

=====

Disposal Data

=====

=====

Label Data

=====

Label Required: YES  
Technical Review Date: 18OCT96  
Label Date: 17OCT96  
Label Status: G  
Common Name: HH-66 VINYL CEMENT  
Chronic Hazard: YES

Signal Word: DANGER!

Acute Health Hazard-Moderate: X

Contact Hazard-Slight: X

Fire Hazard-Severe: X

Reactivity Hazard-None: X

Special Hazard Precautions: EXTREMELY FLAMMABLE. ACUTE: EYES: IRRITATION, REDNESS, TEARING AND SWELLING. SKIN: DRYNESS AND CRACKING, DEFATTING AND POSSIBLE DERMATITIS. INHALATION: IRRITATION TO RESPIRATORY SYSTEM, DIZZINESS, HEADACHE, NAUSEA AND LIGHT HEADEDNESS. EXTREME OVEREXPOSURE NAUSEA, VOMITING AND DIARRHEA. ASPIRATION INTO LUNGS MAY CAUSE LUNG DAMAGE.

CHRONIC: TOLUENE APPEARS ON THE NAVY OCCUPATIONAL CHEMICAL REPRODUCTIVE HAZARDS LIST (FP N).

Protect Eye: Y

Protect Skin: Y

Protect Respiratory: Y

Label Name: R-H PRODUCTS CO INC

Label Street: 308 OLD HIGH ST

Label P.O. Box: 2301

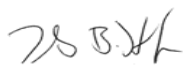
Label City: ACTON

Label State: MA

Label Zip Code: 01720

Label Country: US

Label Emergency Number: 800-535-5053

| <b>TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR<br/>MANUFACTURER'S CERTIFICATES OF COMPLIANCE</b><br><small>(Read instructions on reverse side prior to initiating this form)</small>                                      |                                         |                                                                                              |                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                        | <b>DATE</b><br>October 10, 2012              |                                      | <b>TRANSMITTAL NO:</b><br><b>008</b>                                                                                                                                |                                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| <b>SECTION I - REQUEST FOR APPROVAL OF THE FOLLOWING ITEMS</b> (This section will be initiated by the Contractor)                                                                                                                                |                                         |                                                                                              |                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                        |                                              |                                      |                                                                                                                                                                     |                                |
| <b>TO:</b><br>Zachary Mothershed - Project Engineer<br>US Army Corps of Engineers<br>696 Virginia Road<br>Concord, MA 01742-2751                                                                                                                 |                                         |                                                                                              | <b>FROM:</b><br>Sovereign Consulting, Inc.<br>16 Chestnut Street, Suite 520<br>Foxboro, MA 02035                                                 |                                                                                                                                                                                                                                                                                                                                                                                                        | <b>CONTRACT NO:</b><br>W912WJ-10-D-0003-0002 |                                      | <b>CHECK ONE:</b><br><input checked="checked" type="checkbox"/> THIS IS A NEW TRANSMITTAL<br><input type="checkbox"/> THIS IS A RESUBMITTAL OF<br>TRANSMITTAL _____ |                                |
| SPECIFICATION SECTION NO: (Cover only one section with each transmittal)<br><b>02485 (02260, 02370)</b>                                                                                                                                          |                                         |                                                                                              | PROJECT TITLE AND LOCATION:<br><div style="text-align: right;"> <b>Shepley's Hill Landfill<br/>Barrier Wall<br/>Devens, Massachusetts</b> </div> |                                                                                                                                                                                                                                                                                                                                                                                                        |                                              |                                      |                                                                                                                                                                     |                                |
| ITEM<br>NO.<br><br>a.                                                                                                                                                                                                                            | DESCRIPTION OF ITEM SUBMITTED<br><br>b. | MFG. OR CONTR. CAT.<br>CURVE DRAWING OR<br>BROCHURE NO.<br><br>c.<br>(See instruction No. 8) | NO. OF<br>COPIES<br><br>d.                                                                                                                       | CONTRACT REFERENCE<br>DOCUMENT                                                                                                                                                                                                                                                                                                                                                                         |                                              | FOR CONTRACTOR<br>USE CODE<br><br>g. | VARIATION<br>(See instruction<br>No. 6)<br><br>h.                                                                                                                   | FORCE<br>USE<br>CODE<br><br>i. |
|                                                                                                                                                                                                                                                  |                                         |                                                                                              |                                                                                                                                                  | SPEC. PARA.<br>NO.<br><br>e.                                                                                                                                                                                                                                                                                                                                                                           | DRAWING<br>SHEET NO.<br><br>f.               |                                      |                                                                                                                                                                     |                                |
| 1                                                                                                                                                                                                                                                | Revised Seed Mix - Required by ACOE     | N/A                                                                                          | 1                                                                                                                                                | 1.4                                                                                                                                                                                                                                                                                                                                                                                                    | C-103                                        | For Approval                         | ~                                                                                                                                                                   |                                |
|                                                                                                                                                                                                                                                  |                                         |                                                                                              |                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                        | C-302, E                                     |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                                                                  |                                         |                                                                                              |                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                        |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                                                                  |                                         |                                                                                              |                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                        |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                                                                  |                                         |                                                                                              |                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                        |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                                                                  |                                         |                                                                                              |                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                        |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                                                                  |                                         |                                                                                              |                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                        |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                                                                  |                                         |                                                                                              |                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                        |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                                                                  |                                         |                                                                                              |                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                        |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                                                                  |                                         |                                                                                              |                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                        |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                                                                  |                                         |                                                                                              |                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                        |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                                                                  |                                         |                                                                                              |                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                        |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                                                                  |                                         |                                                                                              |                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                        |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                                                                  |                                         |                                                                                              |                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                        |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                                                                  |                                         |                                                                                              |                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                        |                                              |                                      |                                                                                                                                                                     |                                |
| REMARKS<br>Per the USACE's request the existing restoration plan (seed and loam) has been revised. The final restoration will be performed in accordance the USACE-NE recommended restoration plan contained in an email dated 04 September 2012 |                                         |                                                                                              |                                                                                                                                                  | I certify that the above submitted items have been reviewed in detail and correct and in strict conformance with the contract drawings and specifications except as otherwise stated.<br><br><div style="text-align: right;"> <u>Thomas B. Hevner</u> <br/>         NAME AND SIGNATURE OF CONTRACTOR       </div> |                                              |                                      |                                                                                                                                                                     |                                |
| <b>SECTION II - APPROVAL ACTION</b>                                                                                                                                                                                                              |                                         |                                                                                              |                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                        |                                              |                                      |                                                                                                                                                                     |                                |
| ENCLOSURES RETURNED (List by Item No.)                                                                                                                                                                                                           |                                         |                                                                                              | NAME, TITLE AND SIGNATURE OF APPROVING AUTHORITY                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                        |                                              |                                      | DATE                                                                                                                                                                |                                |
|                                                                                                                                                                                                                                                  |                                         |                                                                                              |                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                        |                                              |                                      |                                                                                                                                                                     |                                |

# PRO LAWN SUPPLY, INC.

67A MILLBROOK STREET  
WORCESTER, MA 01606  
TEL: 508-754-0100 / FAX: 508-754-0101

## CERTIFICATE OF MATERIALS

Date: **09-27-12**

We hereby certify that **PRO LAWN SUPPLY, INC..**

Furnished to: **Gatsby Grounds**

For use on:

Federal:

Highway contract no:

Quantity:

Identified by: **Tags**

Shipped via: **PRO LAWN SUPPLY, INC.**

| <u>MF-GLA</u>  | <u>Special Mix</u>           |             |
|----------------|------------------------------|-------------|
| <u>PERCENT</u> | <u>Fine textured grasses</u> | <u>GERM</u> |
| 49.50%         | Camper Little Bluestem       | 89%         |
| 32.67%         | Niagara Big Bluestem         | 85%         |
| 14.85%         | Indiangrass                  | 85%         |
| 1.48%          | Black Eyed Susan             | 75%         |
| 0.24%          | Blue False Indigo            | 85%         |
| 0.24%          | Perennial Lupine             | 90%         |

### OTHER INGREDIENTS

|               |                       |               |
|---------------|-----------------------|---------------|
| 0.85% INERT   | 0.10% CROP            | 0.05% WEED    |
| TESTED: 09/12 | PRO LAWN SUPPLY, INC. | WORCESTER, MA |

MEETS THE REQUIREMENTS OF THE PERTINENT PROJECT PLANS, SPECIAL PROVISIONS AND SPECIFICATIONS OF THE DEPARTMENT OF TRANSPORTATION IN ALL RESPECTS. PROCESSING, TESTING, AND INSPECTION CONTROL, OF RAW MATERIALS ARE IN CONFORMANCE WITH ALL ARTICLES FURNISHED.

ALL RECORDS AND DOCUMENTS PERTINENT TO THIS CERTIFICATE AND NOT SUBMITTED HERewith WILL BE MAINTAINED AVAILABLE FOR A PERIOD OF NOT LESS THAN THREE YEARS FROM DATE OF FINAL PAYMENT.

## Hevner, Thomas

---

**From:** Iorio, Maryellen NAE <Maryellen.Iorio@usace.army.mil>  
**Sent:** Thursday, September 27, 2012 11:03 AM  
**To:** Mothershed, Zachary J NAE; Hevner, Thomas  
**Subject:** FW: Shepley (NHESP 12-31152) - Following Up (UNCLASSIFIED)  
**Attachments:** Shepley Landfill Cutoff Wall - Site restoration v2.doc

**Categories:** Milestone

Classification: UNCLASSIFIED

Caveats: NONE

Do you have time to accommodate this?

e

Ellen Iorio, P.E, P.M.P  
US Army Corps of Engineers  
New England District  
696 Virginia Road  
Concord, MA 01742-2751  
978-318-8433 (office)  
978-408-0416 (BlackBerry)  
978-318-8891 (fax)

-----Original Message-----

From: Penko, Michael NAE  
Sent: Thursday, September 27, 2012 10:59 AM  
To: Hevner, Thomas  
Cc: Iorio, Maryellen NAE  
Subject: FW: Shepley (NHESP 12-31152) - Following Up

Tom,

NHESP approved the proposed warm season seed mix for the shepley cutoff wall restoration, with one minor exception (delete Lance-leaved coreopsis)

They also had some comments on the standard New England Wetland Plant (NEWP) seed mixes recommended for sloped dry areas and wet areas. Please try to meet these requests, if possible. If NEWP can't supply the modified mixes without a big hassle, just go with their standard mix.

Thanks

Mike.

Michael Penko  
Ecologist  
US Army Corps of Engineers



New England District  
696 Virginia Road  
Concord, MA 01742  
978-318-8139

-----Original Message-----

From: Leddick, Jesse (FWE) [mailto:[jesse.lednick@state.ma.us](mailto:jesse.lednick@state.ma.us)]  
Sent: Thursday, September 27, 2012 8:53 AM  
To: Penko, Michael NAE  
Subject: RE: Shepley (NHESP 12-31152) - Following Up

Mike,

Great, looks like we have a plan. I have prepared a comment letter memorializing the approach we have discussed, including restoration of upland areas after disturbance (with warm season grasses, to the extent possible) and monitoring of the barrier wall area (so as to inform future restoration phases). We should be able to issue this next week.

Thanks, also, for forwarding along the seed mix for our review. Upon review of the proposed list, our botanist identified the following species as non-native (introduced). If possible, it would be great to adjust the planting list so as to remove these species, or as many of them as practicable; New England Wetland Plants should be able to easily adjust the mixes, but please let me know if this becomes problematic. Would it also be possible to quickly update the restoration plan (noting the deletions, below, or whatever ends up being practicable after speaking with the seed company) and resend? I would like to attach the final restoration plan to our letter, if possible.

Warm Season Grass Mix: Lance-leaved coreopsis. All other species okay.

Mix for Dry Sites: *Lolium multiflorum*, *Lolium perenne*, and *Bouteloua gracilis*. Additionally, it would be great to use the native subspecies of

*Festuca rubra*, if possible. All other species okay.

Mix for Wet Sites: As above, it would be great to use the native subspecies of *Festuca rubra*, if possible. All other species okay.

Thanks again for your help and work on this.

. Jesse

-----  
Jesse Leddick  
Endangered Species Review Biologist  
Natural Heritage & Endangered Species Program MA Division of Fisheries & Wildlife PLEASE NOTE NEW ADDRESS (phone & email unchanged)  
100 Hartwell Street, Suite 230, West Boylston, MA, 01583  
Phone: 508-389-6386 | Fax: 508-389-7890

-----Original Message-----

From: Penko, Michael NAE [mailto:[Michael.Penko@usace.army.mil](mailto:Michael.Penko@usace.army.mil)]

Sent: Wednesday, September 19, 2012 3:55 PM  
To: Leddick, Jesse (FWE)  
Subject: RE: Shepley (NHESP 12-31152) - Following Up

Jesse,

The approach you outline sounds fine. We would be willing to monitor the site post seeding to see how things go. The Plow Shop Pond work is not currently funded...will know in February if it will be done in 2013. The Round House work is on hold. They were unable to dewater the work area. A plan is being developed to address this issue (involves partial draining of the pond) and I will send that along in a separate communication. We would be willing to submit restoration plans for Red Cove and Round House work in advance for your review and approval. A link to the New England Wetland Plants mix is attached.

Thanks

Mike

<http://www.newp.com/catalogue-seeds.html>

-----Original Message-----

From: Leddick, Jesse (FWE) [mailto:[jesse.leddick@state.ma.us](mailto:jesse.leddick@state.ma.us)]  
Sent: Monday, September 17, 2012 11:53 AM  
To: Penko, Michael NAE  
Cc: Leddick, Jesse (FWE)  
Subject: RE: Shepley (NHESP 12-31152) - Following Up

Hi Mike,

Thanks very much for forwarding this along, and my apologies for the delayed response on my end. We actually moved offices over the last two weeks but are finally up and running after a very hectic period. But generally, the habitat restoration plan looks great. I will need to run the seed mixture by our botanist for review (just to be sure that all are native); toward this end, can you please forward the seed mixture for the dry site mix as soon as possible? I will forward this, plus the plan, directly to our botanist for review.

Additionally, it would be helpful to include the proposed timing for the Round House and Red Cove projects (in the restoration plan you sent). Given that we are looking to assess performance of this initial restoration so as to inform restoration for the future projects/phases, it would also be helpful to explicitly state how/when restoration success will be assessed; this can be qualitative in nature, I think, but I would appreciate your thoughts on how to make this more explicit in the plan.

I would anticipate, in our comment letter, requesting that restoration plans be submitted for review prior to restoration of future phases, which would enable us to incorporate lessons from this restoration into future plans.... does this seem like an appropriate approach from your perspective?

Many thanks,

... Jesse

-----  
Jesse Leddick

Endangered Species Review Biologist

Natural Heritage & Endangered Species Program MA Division of Fisheries & Wildlife PLEASE NOTE NEW ADDRESS (phone & email unchanged)

100 Hartwell Street, Suite 230, West Boylston, MA, 01583

Phone: 508-389-6386 | Fax: 508-389-7890

-----Original Message-----

From: Penko, Michael NAE [mailto:Michael.Penko@usace.army.mil]

Sent: Thursday, September 06, 2012 1:04 PM

To: Leddick, Jesse (FWE)

Subject: RE: Shepley (NHESP 12-31152) - Following Up

Jesse,

Please find attached a proposed restoration plan for areas that are being disturbed during installation of the Shepley Landfill cut-off wall. About 1.2 acres along the edge of the landfill need to be restored this fall.

Depending on how it performs, the proposed warm season mix could also be used to restore upland areas disturbed by the other two projects in subsequent years. The round house project is on hold because of construction difficulties and the Red Cove work is currently not funded.

Thanks

Mike

Michael Penko

Ecologist

US Army Corps of Engineers

New England District

696 Virginia Road

Concord, MA 01742

978-318-8139

Classification: UNCLASSIFIED

Caveats: NONE

## Shepley Landfill – Cutoff Wall Area Restoration

### Existing Restoration Plan

Based on review of 90% Plans and Specs the contractor is required to install 4" of topsoil (1.5 to 20% organic content) obtained from offsite (Section 2260). The specs don't seem to include a permanent seed mix; Section 2370 mentions use of annual and winter rye for temporary cover. In an email dated September 4, 2012 use of New England Erosion/Restoration Mix (for dry sites) and New England Erosion/Restoration Mix (for detention basins and moist sites) is recommended.

### New England District Recommended Restoration Plan

- 1) Prepare subsoil as described in Section 2260.
- 2) Top-dress with 4 inches of sandy subsoil material already stockpiled on site (a moderate number of small (< 6") rocks can be tolerated). Do not apply topsoil.
- 3) In flat dry areas broadcast warmseason grass seed mix (see below) Track seed into surface soil using a small to medium sized tracked vehicle such as a bobcat (2 passes, 100% coverage each pass). Seed between October 15 and November 15.
- 4) Hydroseed any dry sloped areas which may be prone to erosion with New England Erosion/Restoration Mix (for Dry sites). If slopes are greater than 3:1, install topsoil and use matting. Matting should be wildlife friendly (i.e. free of poly mesh netting).
- 5) Hydroseed or broadcast seed any swales or wet areas with New England Erosion/Restoration Mix (for detention basins and moist sites). Install wildlife friendly matting in swales as needed to control erosion.

| Species/Variety                          | Pounds/Acre<br>Pure Live Seed |
|------------------------------------------|-------------------------------|
| Niagara or Kaw Big bluestem              | 4                             |
| Aldous, Camper, or Blaze Little bluestem | 6                             |
| Rumsey, Osage, or NE-54 Indiangrass      | 2                             |
| Blue false indigo                        | 0.01                          |
| Lance leaved coreopsis                   | 0.05                          |
| Perennial lupine                         | 0.05                          |
| Blackeyed susan                          | 0.1                           |

Eliminated  
on 9/27/12



ERS

September 4, 2012

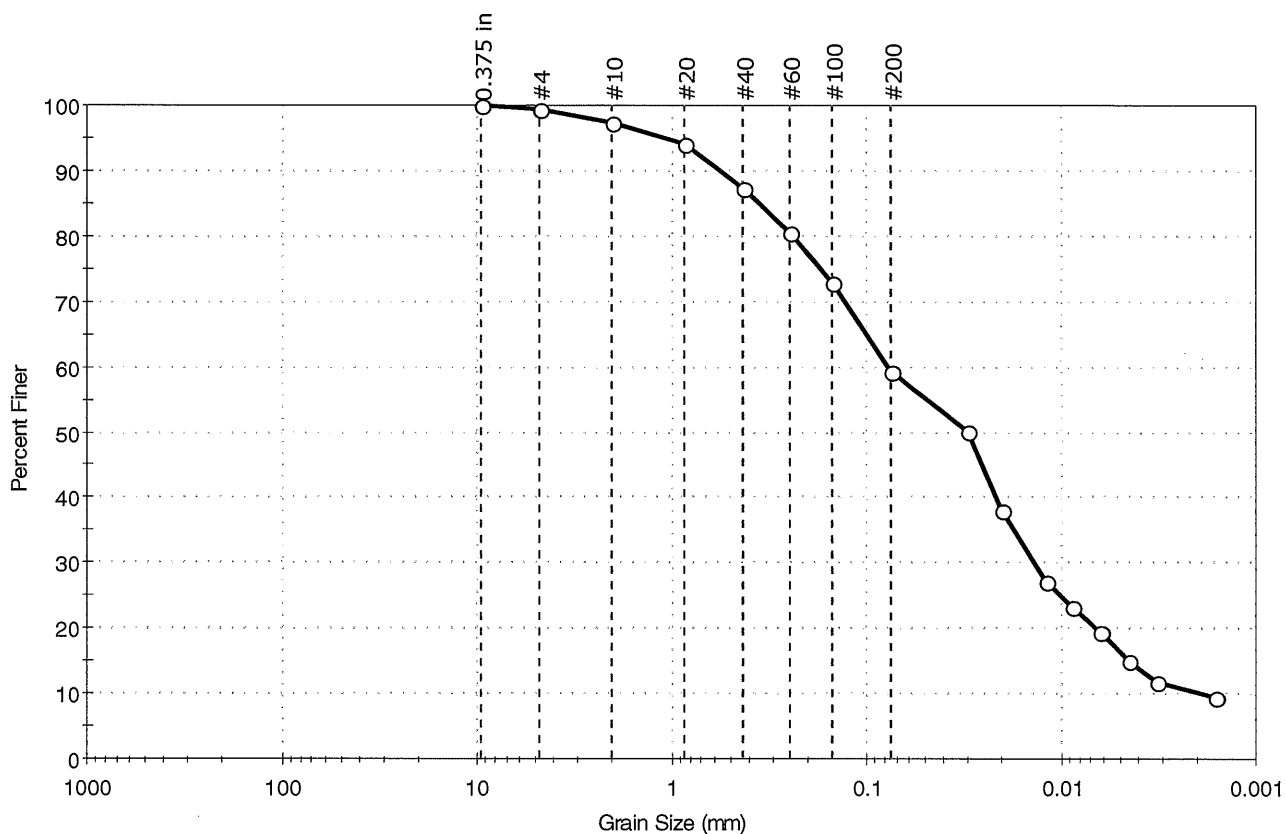


## **APPENDIX B**

### **Results of Off-site Laboratory Backfill 25%/75% Mix Testing**

|                                                                             |                       |
|-----------------------------------------------------------------------------|-----------------------|
| Client: Moretrench American Corp.                                           | Project No: GTX-11659 |
| Project: Shepley Landfill                                                   | Tested By: jbr        |
| Location: Devens, MA                                                        | Checked By: n/a       |
| Boring ID: ---                                                              | Sample Type: bag      |
| Sample ID: 75-25 Mix Sample                                                 | Test Date: 09/06/12   |
| Depth: ---                                                                  | Test Id: 248900       |
| Test Comment: ---                                                           |                       |
| Sample Description: Moist, yellowish brown clayey sand (soil-bentonite mix) |                       |
| Sample Comment: ---                                                         |                       |

## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
|----------|----------|--------|--------------------|
| --       | 0.7      | 39.9   | 59.4               |

| Sieve Name | Sieve Size, mm     | Percent Finer | Spec. Percent | Complies |
|------------|--------------------|---------------|---------------|----------|
| 0.375 in   | 9.50               | 100           |               |          |
| #4         | 4.75               | 99            |               |          |
| #10        | 2.00               | 97            |               |          |
| #20        | 0.85               | 94            |               |          |
| #40        | 0.42               | 87            |               |          |
| #60        | 0.25               | 81            |               |          |
| #100       | 0.15               | 73            |               |          |
| #200       | 0.075              | 59            |               |          |
| ---        | Particle Size (mm) | Percent Finer | Spec. Percent | Complies |
| ---        | 0.0307             | 50            |               |          |
| ---        | 0.0205             | 38            |               |          |
| ---        | 0.0121             | 27            |               |          |
| ---        | 0.0088             | 23            |               |          |
| ---        | 0.0063             | 20            |               |          |
| ---        | 0.0045             | 15            |               |          |
| ---        | 0.0032             | 12            |               |          |
| ---        | 0.0016             | 10            |               |          |

### Coefficients

|                             |                             |
|-----------------------------|-----------------------------|
| D <sub>85</sub> = 0.3565 mm | D <sub>30</sub> = 0.0139 mm |
| D <sub>60</sub> = 0.0774 mm | D <sub>15</sub> = 0.0046 mm |
| D <sub>50</sub> = 0.0306 mm | D <sub>10</sub> = 0.0019 mm |
| C <sub>u</sub> = N/A        | C <sub>c</sub> = N/A        |

### Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

### Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---





|                     |                                                         |             |        |
|---------------------|---------------------------------------------------------|-------------|--------|
| Client:             | Moretrench American Corp.                               |             |        |
| Project Name:       | Shepley Landfill                                        |             |        |
| Project Location:   | Devens, MA                                              |             |        |
| GTX #:              | 11659                                                   |             |        |
| Start Date:         | 9/5/2012                                                | Tested By:  | md/ema |
| End Date:           | 9/10/2012                                               | Checked By: | jdt    |
| Boring #:           | ---                                                     |             |        |
| Sample #:           | 75-25 Mix                                               |             |        |
| Depth:              | ---                                                     |             |        |
| Visual Description: | Moist, yellowish brown clayey sand (soil-bentonite mix) |             |        |

## Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter by ASTM D 5084 Constant Volume

|                     |                                                                                                                       |                 |                          |
|---------------------|-----------------------------------------------------------------------------------------------------------------------|-----------------|--------------------------|
| Sample Type:        | Remolded                                                                                                              | Permeant Fluid: | De-aired Distilled water |
| Orientation:        | Vertical                                                                                                              | Cell #:         | 1/23/1                   |
| Sample Preparation: | Test specimen compacted with moderate effort at the as-received moisture content . Trimmings moisture content = 29.9% |                 |                          |

| Parameter               | Initial | Final |
|-------------------------|---------|-------|
| Height, in              | 2.10    | 1.97  |
| Diameter, in            | 2.85    | 2.90  |
| Area, in <sup>2</sup>   | 6.38    | 6.61  |
| Volume, in <sup>3</sup> | 13.4    | 13.0  |
| Mass, g                 | 441     | 405   |
| Bulk Density, pcf       | 125     | 118   |
| Moisture Content, %     | 29.6    | 19.1  |
| Dry Density, pcf        | 96.5    | 99.4  |
| Degree of Saturation, % | ---     | 99    |

### B COEFFICIENT DETERMINATION

|                       |      |                          |      |
|-----------------------|------|--------------------------|------|
| Cell Pressure, psi:   | 95.1 | Pressure Increment, psi: | 5.00 |
| Sample Pressure, psi: | 90.3 | B Coefficient:           | 0.98 |

### FLOW DATA

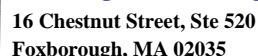
| Date | Trial # | Pressure, psi |        | Manometer Readings |                |                                | Elapsed Time, sec | Gradient | Permeability K, cm/sec | Temp, °C | R <sub>t</sub> | Permeability K @ 20 °C, cm/sec |
|------|---------|---------------|--------|--------------------|----------------|--------------------------------|-------------------|----------|------------------------|----------|----------------|--------------------------------|
|      |         | Cell          | Sample | Z <sub>1</sub>     | Z <sub>2</sub> | Z <sub>1</sub> -Z <sub>2</sub> |                   |          |                        |          |                |                                |
| 9/7  | 5       | 90            | 85     | 11.0               | 10.9           | 0.1                            | 31                | 27.7     | 8.6E-08                | 20       | 1.000          | 8.6E-08                        |
| 9/7  | 6       | 90            | 85     | 11.0               | 10.9           | 0.1                            | 31                | 27.7     | 8.6E-08                | 20       | 1.000          | 8.6E-08                        |
| 9/7  | 7       | 90            | 85     | 11.0               | 10.9           | 0.1                            | 32                | 27.7     | 8.4E-08                | 20       | 1.000          | 8.4E-08                        |
| 9/7  | 8       | 90            | 85     | 11.0               | 10.9           | 0.1                            | 32                | 27.7     | 8.4E-08                | 20       | 1.000          | 8.4E-08                        |

**PERMEABILITY AT 20° C:  $8.5 \times 10^{-8}$  cm/sec (@ 5 psi effective stress)**



## **APPENDIX C**

### **Piezometer Boring Logs**



Sheet 1 of 1

| Casing    | Sampler |
|-----------|---------|
| Type: PVC | NA      |
| Size: 2"  | NA      |
| Hammer    | NA      |
| Pneumatic | NA      |

|                    |           |
|--------------------|-----------|
| Casing Elevation:  | 237.54    |
| Surface Elevation: | 233.80    |
| Wellhead Type:     | Standpipe |

| Sample Information |           |                 |                |          |            |             | Start Date:                                                                                      | 10/10/2012          | Casing Elevation:  | 237.54                                    |
|--------------------|-----------|-----------------|----------------|----------|------------|-------------|--------------------------------------------------------------------------------------------------|---------------------|--------------------|-------------------------------------------|
|                    |           |                 |                |          |            |             | Completion Date:                                                                                 | 10/10/2012          | Surface Elevation: | 233.80                                    |
|                    |           |                 |                |          |            |             | Wellhead Type: Standpipe                                                                         |                     |                    |                                           |
| Depth              | Sample ID | Pen./Rec. (in.) | Interval (Ft.) | Blows/6" | PID (ppmv) | Sample Type | Sample Description                                                                               | Stratum Change (ft) | Notes              | Test Boring/ Monitoring Well Construction |
| 2                  |           |                 |                |          |            |             |                                                                                                  |                     |                    |                                           |
| 4                  |           |                 |                |          |            |             |                                                                                                  |                     |                    |                                           |
| 6                  |           |                 | 5-7            | 8-3-2-2  | NA         | C           | 2.5Y (4/2) dark grayish brown, dry, well sorted fine to medium sand, trace fine rounded gravel.  |                     |                    |                                           |
| 8                  |           |                 |                |          |            |             |                                                                                                  |                     |                    |                                           |
| 10                 |           |                 |                |          |            |             |                                                                                                  |                     |                    |                                           |
| 12                 |           |                 | 10-12          | 4-4-5-5  | NA         | C           | 2.5Y (6/3) light yellowish brown, dry, well sorted fine to med. Sand, trace fine rounded gravel. |                     |                    |                                           |
| 14                 |           |                 |                |          |            |             |                                                                                                  |                     |                    |                                           |
| 16                 |           |                 | 15-17          | 6-4-4-6  | NA         | C           | 10YR (5/6) yellowish brown, dry, fine to med. Sand, trace fine rounded gravel, trace silt.       |                     |                    |                                           |
| 18                 |           |                 |                |          |            |             |                                                                                                  |                     |                    |                                           |
| 20                 |           |                 |                |          |            |             |                                                                                                  |                     |                    |                                           |
| 22                 |           | 14/24           | 20-22          | 2-2-3-4  | NA         | C           | 2.5Y (5/3) light olive brown, wet, sat., fine to medium sand.                                    |                     |                    |                                           |
| 24                 |           |                 |                |          |            |             |                                                                                                  |                     |                    |                                           |
| 26                 |           | 21/24           | 25-27          | 1-1-1-1  | NA         | C           | 2.5Y (5/4) light olive brown, wet, sat., fine to medium sand.                                    |                     |                    |                                           |
| 28                 |           |                 |                |          |            |             |                                                                                                  |                     |                    |                                           |
| 30                 |           |                 |                |          |            |             |                                                                                                  |                     |                    |                                           |
| 32                 |           |                 | 30-32          | 1-3-4-7  | NA         | C           | 2.5Y (5/6) light olive brown, wet, sat. fine to medium sand.                                     |                     |                    |                                           |
| 34                 |           |                 |                |          |            |             |                                                                                                  |                     |                    |                                           |

Notes:

- 1) Technical Drilling Services of Sterling, M/
- 2) Hollow Stem Auger

Key:

- Cement
- Native Backfill Material
- Grout
- Bentonite
- Sand

Well completed with standpipe over riser, 3 ft above ground surface


Native backfill 1'-20'


Bentonite, 20'-22'


#2 Morie Sand, 36'-22'

















2" Schedule 40 PVC Screen with 2' of 0.010" Slotted Screen 24'-34'

Remarks: 1) Stratification lines represent approximate boundaries between soil types and the transition may be gradual. Water level readings have been completed at times and under conditions stated. Fluctuations of groundwater may occur due to factors other than those present at the time measurements were made.  
2) Sample is designated as either "C" for composite or "GS" for a discrete grab sample.


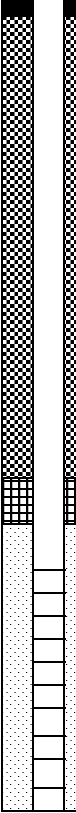
|  <b>Sovereign Consulting Inc.</b><br>16 Chestnut Street, Ste 520<br>Foxborough, MA 02035                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                | Boring/Well ID: <b>PZ-12-02</b>                                                                                                                                                                                              |                | Sheet <u>  1  </u> of <u>  1  </u>                                                                                                                                                                                                          |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-------------|--------------------------|-----------|-----------|-----------------|----------------|----------|------------|-------------|--------------------------------------------------------------------------------|---|--------------------|-------|-------------------------------------------------------------------------------------------------------------------------|---------|----------------------|-------------------------------------------|---|--|--|--|--|--|--|----|--|--|--|--|--|--|----|--|--|-------|---------|----|---|----|--|--|--|--|--|--|----|--|-------|-------|---------|----|---|----|--|--|--|--|--|--|----|--|--|--|--|--|--|----|--|-------|-------|---------|----|---|----|--|--|--|--|--|--|----|--|-------|-------|---------|----|---|----|--|--|--|--|--|--|----|--|--|--|--|--|--|----|--|--|-------|---------|----|---|----|--|--|--|--|--|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|--------------------------------------------------------------|------------------------------------------------------|--|--|--|--|--|--|--|--|--|--|
| Client: U.S.A.C.E.<br>Project: Shepley's Hill Landfill Barrier Wall<br>Project Number: AC001.02B<br>Location: Fort Devens, MA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                | Drilling Co.: TDS <sup>1</sup><br>Drill Rig: HSA <sup>2</sup> ATV<br>Drill Method: Hollow Stem Auger<br>Foreman: Brett<br>SCI Inspector: Mykel Mendes<br>Start Date: 10/10/2012<br>Completion Date: 10/10/2012               |                | <table border="1"> <tr> <th>Casing</th> <th>Sampler</th> </tr> <tr> <td>Type: PVC</td> <td>NA</td> </tr> <tr> <td>Size: 2"</td> <td>NA</td> </tr> <tr> <td>Hammer</td> <td>NA</td> </tr> <tr> <td>Pneumatic</td> <td>NA</td> </tr> </table> |            | Casing      | Sampler                  | Type: PVC | NA        | Size: 2"        | NA             | Hammer   | NA         | Pneumatic   | NA                                                                             |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| Casing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Sampler                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| Type: PVC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | NA                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| Size: 2"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | NA                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| Hammer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | NA                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| Pneumatic                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | NA                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| <table border="1"> <tr> <th colspan="6">Sample Information</th> </tr> <tr> <th>Depth</th> <th>Sample ID</th> <th>Pen./Rec. (in.)</th> <th>Interval (Ft.)</th> <th>Blows/6"</th> <th>PID (ppmv)</th> <th>Sample Type</th> </tr> </table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                | Sample Information                                                                                                                                                                                                           |                |                                                                                                                                                                                                                                             |            |             |                          | Depth     | Sample ID | Pen./Rec. (in.) | Interval (Ft.) | Blows/6" | PID (ppmv) | Sample Type | <table border="1"> <tr> <th colspan="2">Sample Description</th> </tr> </table> |   | Sample Description |       | <table border="1"> <tr> <th>Stratum Change (ft.)</th> <th>Test Boring/ Monitoring Well Construction</th> </tr> </table> |         | Stratum Change (ft.) | Test Boring/ Monitoring Well Construction |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| Sample Information                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| Depth                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Sample ID                                                                                                                                                                                                                                                      | Pen./Rec. (in.)                                                                                                                                                                                                              | Interval (Ft.) | Blows/6"                                                                                                                                                                                                                                    | PID (ppmv) | Sample Type |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| Sample Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| Stratum Change (ft.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Test Boring/ Monitoring Well Construction                                                                                                                                                                                                                      |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| <table border="1"> <tr><td>2</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>4</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>6</td><td></td><td>10/24</td><td>5-7</td><td>2-3-3-4</td><td>NA</td><td>C</td></tr> <tr><td>8</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>10</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>12</td><td></td><td></td><td>10-12</td><td>4-4-5-5</td><td>NA</td><td>C</td></tr> <tr><td>14</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>16</td><td></td><td>21/24</td><td>15-17</td><td>4-3-3-5</td><td>NA</td><td>C</td></tr> <tr><td>18</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>20</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>22</td><td></td><td>24/24</td><td>20-22</td><td>2-3-3-4</td><td>NA</td><td>C</td></tr> <tr><td>24</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>26</td><td></td><td>22/24</td><td>25-27</td><td>3-4-5-5</td><td>NA</td><td>C</td></tr> <tr><td>28</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>30</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>32</td><td></td><td></td><td>30-32</td><td>7-9-6-7</td><td>NA</td><td>C</td></tr> <tr><td>34</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table> |                                                                                                                                                                                                                                                                | 2                                                                                                                                                                                                                            |                |                                                                                                                                                                                                                                             |            |             |                          |           | 4         |                 |                |          |            |             |                                                                                | 6 |                    | 10/24 | 5-7                                                                                                                     | 2-3-3-4 | NA                   | C                                         | 8 |  |  |  |  |  |  | 10 |  |  |  |  |  |  | 12 |  |  | 10-12 | 4-4-5-5 | NA | C | 14 |  |  |  |  |  |  | 16 |  | 21/24 | 15-17 | 4-3-3-5 | NA | C | 18 |  |  |  |  |  |  | 20 |  |  |  |  |  |  | 22 |  | 24/24 | 20-22 | 2-3-3-4 | NA | C | 24 |  |  |  |  |  |  | 26 |  | 22/24 | 25-27 | 3-4-5-5 | NA | C | 28 |  |  |  |  |  |  | 30 |  |  |  |  |  |  | 32 |  |  | 30-32 | 7-9-6-7 | NA | C | 34 |  |  |  |  |  |  | <table border="1"> <tr> <td>2.5Y (6/3) light yellowish brown, dry well sorted fine to medium sand.</td> <td rowspan="18"> <div>Well completed with standpipe over riser, 3 ft above ground surface</div> <div>Native backfill 1'-20'</div> <div>Bentonite, 20'-22'</div> <div>#2 Morie Sand, 36'-22'</div> <div>2" Schedule 40 PVC Screen with 2' of 0.010" Slotted Screen 24'-34'</div> </td> </tr> <tr><td>2.5Y (6/4) light yellowish brown, wet (damp) fine to medium sand, some silt.</td></tr> <tr><td>2.5Y (6/4) light yellowish brown, damp (wet at bottom 2" of split spoon, well sorted fine to medium sand.</td></tr> <tr><td>2.5Y(5/4) light olive brown, wet, sat., fine to medium sand.</td></tr> <tr><td>2.5Y (5/4) light olive brown, wet, sat., fine sand and silt.</td></tr> <tr><td>2.5Y (5/4) light olive brown, wet, sat., fine sands.</td></tr> <tr><td></td></tr> <tr><td></td></tr> <tr><td></td></tr> <tr><td></td></tr> <tr><td></td></tr> <tr><td></td></tr> <tr><td></td></tr> <tr><td></td></tr> <tr><td></td></tr> <tr><td></td></tr> </table> |  | 2.5Y (6/3) light yellowish brown, dry well sorted fine to medium sand. | <div>Well completed with standpipe over riser, 3 ft above ground surface</div> <div>Native backfill 1'-20'</div> <div>Bentonite, 20'-22'</div> <div>#2 Morie Sand, 36'-22'</div> <div>2" Schedule 40 PVC Screen with 2' of 0.010" Slotted Screen 24'-34'</div> | 2.5Y (6/4) light yellowish brown, wet (damp) fine to medium sand, some silt. | 2.5Y (6/4) light yellowish brown, damp (wet at bottom 2" of split spoon, well sorted fine to medium sand. | 2.5Y(5/4) light olive brown, wet, sat., fine to medium sand. | 2.5Y (5/4) light olive brown, wet, sat., fine sand and silt. | 2.5Y (5/4) light olive brown, wet, sat., fine sands. |  |  |  |  |  |  |  |  |  |  |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                | 10/24                                                                                                                                                                                                                        | 5-7            | 2-3-3-4                                                                                                                                                                                                                                     | NA         | C           |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              | 10-12          | 4-4-5-5                                                                                                                                                                                                                                     | NA         | C           |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| 14                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| 16                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                | 21/24                                                                                                                                                                                                                        | 15-17          | 4-3-3-5                                                                                                                                                                                                                                     | NA         | C           |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| 18                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| 20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| 22                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                | 24/24                                                                                                                                                                                                                        | 20-22          | 2-3-3-4                                                                                                                                                                                                                                     | NA         | C           |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| 24                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| 26                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                | 22/24                                                                                                                                                                                                                        | 25-27          | 3-4-5-5                                                                                                                                                                                                                                     | NA         | C           |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| 28                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| 30                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| 32                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              | 30-32          | 7-9-6-7                                                                                                                                                                                                                                     | NA         | C           |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| 34                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| 2.5Y (6/3) light yellowish brown, dry well sorted fine to medium sand.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <div>Well completed with standpipe over riser, 3 ft above ground surface</div> <div>Native backfill 1'-20'</div> <div>Bentonite, 20'-22'</div> <div>#2 Morie Sand, 36'-22'</div> <div>2" Schedule 40 PVC Screen with 2' of 0.010" Slotted Screen 24'-34'</div> |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| 2.5Y (6/4) light yellowish brown, wet (damp) fine to medium sand, some silt.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| 2.5Y (6/4) light yellowish brown, damp (wet at bottom 2" of split spoon, well sorted fine to medium sand.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| 2.5Y(5/4) light olive brown, wet, sat., fine to medium sand.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| 2.5Y (5/4) light olive brown, wet, sat., fine sand and silt.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| 2.5Y (5/4) light olive brown, wet, sat., fine sands.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| Notes: 1) Technical Drilling Services of Sterling, M/<br>2) Hollow Stem Auger                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                | Key: <table border="1"> <tr><td></td><td>Cement</td></tr> <tr><td></td><td>Native Backfill Material</td></tr> <tr><td></td><td>Grout</td></tr> <tr><td></td><td>Bentonite</td></tr> <tr><td></td><td>Sand</td></tr> </table> |                |                                                                                                                                                                                                                                             | Cement     |             | Native Backfill Material |           | Grout     |                 | Bentonite      |          | Sand       |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                | Cement                                                                                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Native Backfill Material                                                                                                                                                                                                                                       |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Grout                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Bentonite                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Sand                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| Remarks: 1) Stratification lines represent approximate boundaries between soil types and the transition may be gradual. Water level readings have been completed at times and under conditions stated. Fluctuations of groundwater may occur due to factors other than those present at the time measurements were made.<br>2) Sample is designated as either "C" for composite or "GS" for a discrete grab sample.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |

|  <b>Sovereign Consulting Inc.</b><br>16 Chestnut Street, Ste 520<br>Foxborough, MA 02035                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                     | Boring/Well ID: <b>PZ-12-03</b>                                                                                                                                                                                              |                | Sheet <u>  1  </u> of <u>  1  </u>                                                                                                                                                                                                          |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-------------|--------------------------|-----------|-----------|-----------------|----------------|----------|------------|-------------|--------------------------------------------------------------------------------|---|--------------------|-------|-------------------------------------------------------------------------------------------------------------------------|----------|----------------------|-------------------------------------------|---|--|--|--|--|--|--|----|--|--|--|--|--|--|----|--|------|-------|---------|----|---|----|--|--|--|--|--|--|----|--|------|-------|----------|----|---|----|--|--|--|--|--|--|----|--|--|--|--|--|--|----|--|------|-------|---------|----|---|----|--|--|--|--|--|--|----|--|-------|-------|---------|----|---|----|--|--|--|--|--|--|----|--|--|--|--|--|--|----|--|-------|-------|-----------|----|---|----|--|--|--|--|--|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|---------------------------------------------------------------------|--|------------------------|--|--------------------|--|------------------------|--|--------------------------------------------------------------------|
| Client: U.S.A.C.E.<br>Project: Shepley's Hill Landfill Barrier Wall<br>Project Number: AC001.02B<br>Location: Fort Devens, MA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                     | Drilling Co.: TDS <sup>1</sup><br>Drill Rig: HSA <sup>2</sup> ATV<br>Drill Method: Hollow Stem Auger<br>Foreman: Brett<br>SCI Inspector: Mykel Mendes<br>Start Date: 10/10/2012<br>Completion Date: 10/10/2012               |                | <table border="1"> <tr> <th>Casing</th> <th>Sampler</th> </tr> <tr> <td>Type: PVC</td> <td>NA</td> </tr> <tr> <td>Size: 2"</td> <td>NA</td> </tr> <tr> <td>Hammer</td> <td>NA</td> </tr> <tr> <td>Pneumatic</td> <td>NA</td> </tr> </table> |            | Casing      | Sampler                  | Type: PVC | NA        | Size: 2"        | NA             | Hammer   | NA         | Pneumatic   | NA                                                                             |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| Casing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Sampler                                                             |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| Type: PVC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | NA                                                                  |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| Size: 2"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | NA                                                                  |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| Hammer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | NA                                                                  |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| Pneumatic                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | NA                                                                  |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| <table border="1"> <tr> <th colspan="6">Sample Information</th> </tr> <tr> <th>Depth</th> <th>Sample ID</th> <th>Pen./Rec. (in.)</th> <th>Interval (Ft.)</th> <th>Blows/6"</th> <th>PID (ppmv)</th> <th>Sample Type</th> </tr> </table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                     | Sample Information                                                                                                                                                                                                           |                |                                                                                                                                                                                                                                             |            |             |                          | Depth     | Sample ID | Pen./Rec. (in.) | Interval (Ft.) | Blows/6" | PID (ppmv) | Sample Type | <table border="1"> <tr> <th colspan="2">Sample Description</th> </tr> </table> |   | Sample Description |       | <table border="1"> <tr> <th>Stratum Change (ft.)</th> <th>Test Boring/ Monitoring Well Construction</th> </tr> </table> |          | Stratum Change (ft.) | Test Boring/ Monitoring Well Construction |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| Sample Information                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                     |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| Depth                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Sample ID                                                           | Pen./Rec. (in.)                                                                                                                                                                                                              | Interval (Ft.) | Blows/6"                                                                                                                                                                                                                                    | PID (ppmv) | Sample Type |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| Sample Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                     |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| Stratum Change (ft.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Test Boring/ Monitoring Well Construction                           |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| <table border="1"> <tr><td>2</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>4</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>6</td><td></td><td>12/24</td><td>5-7</td><td>12-8-4-4</td><td>NA</td><td>C</td></tr> <tr><td>8</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>10</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>12</td><td></td><td>6/24</td><td>10-12</td><td>7-4-3-2</td><td>NA</td><td>C</td></tr> <tr><td>14</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>16</td><td></td><td>6/24</td><td>15-17</td><td>13-8-4-2</td><td>NA</td><td>C</td></tr> <tr><td>18</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>20</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>22</td><td></td><td>3/24</td><td>20-22</td><td>3-2-4-4</td><td>NA</td><td>C</td></tr> <tr><td>24</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>26</td><td></td><td>24/24</td><td>25-27</td><td>6-4-6-7</td><td>NA</td><td>C</td></tr> <tr><td>28</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>30</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>32</td><td></td><td>24/24</td><td>30-32</td><td>7-11-9-10</td><td>NA</td><td>C</td></tr> <tr><td>34</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table> |                                                                     | 2                                                                                                                                                                                                                            |                |                                                                                                                                                                                                                                             |            |             |                          |           | 4         |                 |                |          |            |             |                                                                                | 6 |                    | 12/24 | 5-7                                                                                                                     | 12-8-4-4 | NA                   | C                                         | 8 |  |  |  |  |  |  | 10 |  |  |  |  |  |  | 12 |  | 6/24 | 10-12 | 7-4-3-2 | NA | C | 14 |  |  |  |  |  |  | 16 |  | 6/24 | 15-17 | 13-8-4-2 | NA | C | 18 |  |  |  |  |  |  | 20 |  |  |  |  |  |  | 22 |  | 3/24 | 20-22 | 3-2-4-4 | NA | C | 24 |  |  |  |  |  |  | 26 |  | 24/24 | 25-27 | 6-4-6-7 | NA | C | 28 |  |  |  |  |  |  | 30 |  |  |  |  |  |  | 32 |  | 24/24 | 30-32 | 7-11-9-10 | NA | C | 34 |  |  |  |  |  |  | <table border="1"> <tr> <td>2.5Y (4/3) olive brown, dry, top 4" of spoon organic topsoil, fine to med. Sand, little silt, little subrounded gravel.</td> <td></td> </tr> <tr> <td>2.5Y (3/3) dark olive brown, dry to slightly damp, fine to med. Sand, some silts, trace coarse rounded gravel.</td> <td></td> </tr> <tr> <td>2.5Y (4/3) olive brown, damp, med. To coarse sand, some silts, little coarse rounded gravel. Rock fragments.</td> <td></td> </tr> <tr> <td>2.5Y (3/3) dark olive brown, wet, sat. med. To coarse sand, some silt, trace fine gravel.</td> <td></td> </tr> <tr> <td>2.5Y (3/3) dark olive brown, wet, sat., fine to med. Sand, little coarse sand.</td> <td></td> </tr> <tr> <td>10YR, (5/6) yellowish brown, wet, sat., fine to med. Sand, trace coarse sand.</td> <td></td> </tr> </table> |  | 2.5Y (4/3) olive brown, dry, top 4" of spoon organic topsoil, fine to med. Sand, little silt, little subrounded gravel. |  | 2.5Y (3/3) dark olive brown, dry to slightly damp, fine to med. Sand, some silts, trace coarse rounded gravel. |  | 2.5Y (4/3) olive brown, damp, med. To coarse sand, some silts, little coarse rounded gravel. Rock fragments. |  | 2.5Y (3/3) dark olive brown, wet, sat. med. To coarse sand, some silt, trace fine gravel. |  | 2.5Y (3/3) dark olive brown, wet, sat., fine to med. Sand, little coarse sand. |  | 10YR, (5/6) yellowish brown, wet, sat., fine to med. Sand, trace coarse sand. |  | <table border="1"> <tr> <td></td> <td>Well completed with standpipe over riser, 3 ft above ground surface</td> </tr> <tr> <td></td> <td>Native backfill 1'-20'</td> </tr> <tr> <td></td> <td>Bentonite, 20'-22'</td> </tr> <tr> <td></td> <td>#2 Morie Sand, 36'-22'</td> </tr> <tr> <td></td> <td>2" Schedule 40 PVC Screen with 2' of 0.010" Slotted Screen 24'-34'</td> </tr> </table> |  |  | Well completed with standpipe over riser, 3 ft above ground surface |  | Native backfill 1'-20' |  | Bentonite, 20'-22' |  | #2 Morie Sand, 36'-22' |  | 2" Schedule 40 PVC Screen with 2' of 0.010" Slotted Screen 24'-34' |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                     |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                     |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                     | 12/24                                                                                                                                                                                                                        | 5-7            | 12-8-4-4                                                                                                                                                                                                                                    | NA         | C           |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                     |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                     |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                     | 6/24                                                                                                                                                                                                                         | 10-12          | 7-4-3-2                                                                                                                                                                                                                                     | NA         | C           |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 14                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                     |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 16                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                     | 6/24                                                                                                                                                                                                                         | 15-17          | 13-8-4-2                                                                                                                                                                                                                                    | NA         | C           |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 18                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                     |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                     |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 22                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                     | 3/24                                                                                                                                                                                                                         | 20-22          | 3-2-4-4                                                                                                                                                                                                                                     | NA         | C           |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 24                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                     |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 26                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                     | 24/24                                                                                                                                                                                                                        | 25-27          | 6-4-6-7                                                                                                                                                                                                                                     | NA         | C           |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 28                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                     |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 30                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                     |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 32                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                     | 24/24                                                                                                                                                                                                                        | 30-32          | 7-11-9-10                                                                                                                                                                                                                                   | NA         | C           |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 34                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                     |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 2.5Y (4/3) olive brown, dry, top 4" of spoon organic topsoil, fine to med. Sand, little silt, little subrounded gravel.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                     |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 2.5Y (3/3) dark olive brown, dry to slightly damp, fine to med. Sand, some silts, trace coarse rounded gravel.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                     |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 2.5Y (4/3) olive brown, damp, med. To coarse sand, some silts, little coarse rounded gravel. Rock fragments.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                     |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 2.5Y (3/3) dark olive brown, wet, sat. med. To coarse sand, some silt, trace fine gravel.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                     |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 2.5Y (3/3) dark olive brown, wet, sat., fine to med. Sand, little coarse sand.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                     |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 10YR, (5/6) yellowish brown, wet, sat., fine to med. Sand, trace coarse sand.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                     |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Well completed with standpipe over riser, 3 ft above ground surface |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Native backfill 1'-20'                                              |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Bentonite, 20'-22'                                                  |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | #2 Morie Sand, 36'-22'                                              |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 2" Schedule 40 PVC Screen with 2' of 0.010" Slotted Screen 24'-34'  |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| Notes: 1) Technical Drilling Services of Sterling, M/<br>2) Hollow Stem Auger                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                     | Key: <table border="1"> <tr><td></td><td>Cement</td></tr> <tr><td></td><td>Native Backfill Material</td></tr> <tr><td></td><td>Grout</td></tr> <tr><td></td><td>Bentonite</td></tr> <tr><td></td><td>Sand</td></tr> </table> |                |                                                                                                                                                                                                                                             | Cement     |             | Native Backfill Material |           | Grout     |                 | Bentonite      |          | Sand       |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Cement                                                              |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Native Backfill Material                                            |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Grout                                                               |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Bentonite                                                           |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Sand                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| Remarks: 1) Stratification lines represent approximate boundaries between soil types and the transition may be gradual. Water level readings have been completed at times and under conditions stated. Fluctuations of groundwater may occur due to factors other than those present at the time measurements were made.<br>2) Sample is designated as either "C" for composite or "GS" for a discrete grab sample.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                     |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |

|  <b>Sovereign Consulting Inc.</b><br>16 Chestnut Street, Ste 520<br>Foxborough, MA 02035                                                                                                                                                                                                                                         |                                           | Boring/Well ID: <b>PZ-12-04</b>                                                                                                                                                                                                             |                | Sheet <u>  1  </u> of <u>  1  </u>                                                                                                                                                                                                          |                                           |                                                                                                                                                                                                                                                                             |                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-----------|-----------|-----------------|----------------|----------|------------|-------------|-------------------------------------------------------|--|-----------------------------------------------------------------------------------|--|
| Client: U.S.A.C.E.<br>Project: Shepley's Hill Landfill Barrier Wall<br>Project Number: AC001.02B<br>Location: Fort Devens, MA                                                                                                                                                                                                                                                                                    |                                           | Drilling Co.: TDS <sup>1</sup><br>Drill Rig: HSA <sup>2</sup> ATV<br>Drill Method: Hollow Stem Auger<br>Foreman: Brett<br>SCI Inspector: Mykel Mendes                                                                                       |                | <table border="1"> <tr> <th>Casing</th> <th>Sampler</th> </tr> <tr> <td>Type: PVC</td> <td>NA</td> </tr> <tr> <td>Size: 2"</td> <td>NA</td> </tr> <tr> <td>Hammer</td> <td>NA</td> </tr> <tr> <td>Pneumatic</td> <td>NA</td> </tr> </table> |                                           | Casing                                                                                                                                                                                                                                                                      | Sampler                                                                                                         | Type: PVC | NA        | Size: 2"        | NA             | Hammer   | NA         | Pneumatic   | NA                                                    |  |                                                                                   |  |
| Casing                                                                                                                                                                                                                                                                                                                                                                                                           | Sampler                                   |                                                                                                                                                                                                                                             |                |                                                                                                                                                                                                                                             |                                           |                                                                                                                                                                                                                                                                             |                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
| Type: PVC                                                                                                                                                                                                                                                                                                                                                                                                        | NA                                        |                                                                                                                                                                                                                                             |                |                                                                                                                                                                                                                                             |                                           |                                                                                                                                                                                                                                                                             |                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
| Size: 2"                                                                                                                                                                                                                                                                                                                                                                                                         | NA                                        |                                                                                                                                                                                                                                             |                |                                                                                                                                                                                                                                             |                                           |                                                                                                                                                                                                                                                                             |                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
| Hammer                                                                                                                                                                                                                                                                                                                                                                                                           | NA                                        |                                                                                                                                                                                                                                             |                |                                                                                                                                                                                                                                             |                                           |                                                                                                                                                                                                                                                                             |                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
| Pneumatic                                                                                                                                                                                                                                                                                                                                                                                                        | NA                                        |                                                                                                                                                                                                                                             |                |                                                                                                                                                                                                                                             |                                           |                                                                                                                                                                                                                                                                             |                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
| <table border="1"> <tr> <th colspan="6">Sample Information</th> </tr> <tr> <th>Depth</th> <th>Sample ID</th> <th>Pen./Rec. (in.)</th> <th>Interval (Ft.)</th> <th>Blows/6"</th> <th>PID (ppmv)</th> <th>Sample Type</th> </tr> </table>                                                                                                                                                                          |                                           | Sample Information                                                                                                                                                                                                                          |                |                                                                                                                                                                                                                                             |                                           |                                                                                                                                                                                                                                                                             |                                                                                                                 | Depth     | Sample ID | Pen./Rec. (in.) | Interval (Ft.) | Blows/6" | PID (ppmv) | Sample Type | Start Date: 10/10/2012<br>Completion Date: 10/10/2012 |  | Casing Elevation: 238.20<br>Surface Elevation: 235.11<br>Wellhead Type: Standpipe |  |
| Sample Information                                                                                                                                                                                                                                                                                                                                                                                               |                                           |                                                                                                                                                                                                                                             |                |                                                                                                                                                                                                                                             |                                           |                                                                                                                                                                                                                                                                             |                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
| Depth                                                                                                                                                                                                                                                                                                                                                                                                            | Sample ID                                 | Pen./Rec. (in.)                                                                                                                                                                                                                             | Interval (Ft.) | Blows/6"                                                                                                                                                                                                                                    | PID (ppmv)                                | Sample Type                                                                                                                                                                                                                                                                 |                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                  |                                           | <table border="1"> <tr> <th>Stratum Change (ft.)</th> <th>Test Boring/ Monitoring Well Construction</th> </tr> </table>                                                                                                                     |                | Stratum Change (ft.)                                                                                                                                                                                                                        | Test Boring/ Monitoring Well Construction |                                                                                                                                                                                                                                                                             |                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
| Stratum Change (ft.)                                                                                                                                                                                                                                                                                                                                                                                             | Test Boring/ Monitoring Well Construction |                                                                                                                                                                                                                                             |                |                                                                                                                                                                                                                                             |                                           |                                                                                                                                                                                                                                                                             |                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                  |                                           | <table border="1"> <tr> <th>Sample Description</th> <th>Stratum Change (ft.)</th> <th>Test Boring/ Monitoring Well Construction</th> </tr> </table>                                                                                         |                | Sample Description                                                                                                                                                                                                                          | Stratum Change (ft.)                      | Test Boring/ Monitoring Well Construction                                                                                                                                                                                                                                   |                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
| Sample Description                                                                                                                                                                                                                                                                                                                                                                                               | Stratum Change (ft.)                      | Test Boring/ Monitoring Well Construction                                                                                                                                                                                                   |                |                                                                                                                                                                                                                                             |                                           |                                                                                                                                                                                                                                                                             |                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                |                                           |                                                                                                                                                                                                                                             |                |                                                                                                                                                                                                                                             |                                           | <div> <div>Well completed with standpipe over riser, 3 ft above ground surface</div> <div>Native backfill 1'-20'</div> <div>Bentonite, 20'-22'</div> <div>#2 Morie Sand, 36'-22'</div> <div>2" Schedule 40 PVC Screen with 2' of 0.010" Slotted Screen 24'-34'</div> </div> |                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
| 4                                                                                                                                                                                                                                                                                                                                                                                                                |                                           |                                                                                                                                                                                                                                             |                |                                                                                                                                                                                                                                             |                                           |                                                                                                                                                                                                                                                                             |                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
| 6                                                                                                                                                                                                                                                                                                                                                                                                                |                                           | 6/24                                                                                                                                                                                                                                        | 5-7            | 5-4-8-7                                                                                                                                                                                                                                     | NA                                        |                                                                                                                                                                                                                                                                             | 2.5Y (4/2) dark grayish brown, dry, well sorted fine to med. Sand, trace rounded fine gravel.                   |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
| 8                                                                                                                                                                                                                                                                                                                                                                                                                |                                           |                                                                                                                                                                                                                                             |                |                                                                                                                                                                                                                                             |                                           |                                                                                                                                                                                                                                                                             |                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
| 10                                                                                                                                                                                                                                                                                                                                                                                                               |                                           |                                                                                                                                                                                                                                             |                |                                                                                                                                                                                                                                             |                                           |                                                                                                                                                                                                                                                                             |                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
| 12                                                                                                                                                                                                                                                                                                                                                                                                               |                                           | 6/24                                                                                                                                                                                                                                        | 10-12          | 7-4-3-2                                                                                                                                                                                                                                     | NA                                        |                                                                                                                                                                                                                                                                             | 2.5Y (5/3) light olive brown, dry, well sorted fine to med. Sand, little rock fragments.                        |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
| 14                                                                                                                                                                                                                                                                                                                                                                                                               |                                           |                                                                                                                                                                                                                                             |                |                                                                                                                                                                                                                                             |                                           |                                                                                                                                                                                                                                                                             |                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
| 16                                                                                                                                                                                                                                                                                                                                                                                                               |                                           | 12/24                                                                                                                                                                                                                                       | 15-17          | 7-7-7-5                                                                                                                                                                                                                                     | NA                                        |                                                                                                                                                                                                                                                                             | 2.5Y (4/3) olive brown, dry, fine to med.sand, trace rounded gravel.                                            |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
| 18                                                                                                                                                                                                                                                                                                                                                                                                               |                                           |                                                                                                                                                                                                                                             |                |                                                                                                                                                                                                                                             |                                           |                                                                                                                                                                                                                                                                             |                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
| 20                                                                                                                                                                                                                                                                                                                                                                                                               |                                           |                                                                                                                                                                                                                                             |                |                                                                                                                                                                                                                                             |                                           |                                                                                                                                                                                                                                                                             |                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
| 22                                                                                                                                                                                                                                                                                                                                                                                                               |                                           | 5/24                                                                                                                                                                                                                                        | 20-22          | 3-6-9-8                                                                                                                                                                                                                                     | NA                                        |                                                                                                                                                                                                                                                                             | 2.5Y (4/3) olive brown, wet, fine to med. Sand, trace fine rounded gravel.                                      |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
| 24                                                                                                                                                                                                                                                                                                                                                                                                               |                                           |                                                                                                                                                                                                                                             |                |                                                                                                                                                                                                                                             |                                           |                                                                                                                                                                                                                                                                             |                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
| 26                                                                                                                                                                                                                                                                                                                                                                                                               |                                           | 24/24                                                                                                                                                                                                                                       | 25-27          | 4-5-9-26                                                                                                                                                                                                                                    | NA                                        |                                                                                                                                                                                                                                                                             | 2.5Y (5/3) light olive brown, wet, sat., well graded coarse sand, some med. To fine sand, trace rounded gravel. |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
| 28                                                                                                                                                                                                                                                                                                                                                                                                               |                                           |                                                                                                                                                                                                                                             |                |                                                                                                                                                                                                                                             |                                           |                                                                                                                                                                                                                                                                             |                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
| 30                                                                                                                                                                                                                                                                                                                                                                                                               |                                           |                                                                                                                                                                                                                                             |                |                                                                                                                                                                                                                                             |                                           |                                                                                                                                                                                                                                                                             |                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
| 32                                                                                                                                                                                                                                                                                                                                                                                                               |                                           | 24/24                                                                                                                                                                                                                                       | 30-32          |                                                                                                                                                                                                                                             | NA                                        |                                                                                                                                                                                                                                                                             | 2.5Y (4/4) olive brown, wet, sat., fine to med. sand, little coarse sand, trace rounded coarse gravel.          |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
| 34                                                                                                                                                                                                                                                                                                                                                                                                               |                                           |                                                                                                                                                                                                                                             |                |                                                                                                                                                                                                                                             |                                           |                                                                                                                                                                                                                                                                             |                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
| Notes: 1) Technical Drilling Services of Sterling, M/<br>2) Hollow Stem Auger                                                                                                                                                                                                                                                                                                                                    |                                           | Key: <table border="1"> <tr> <td></td> <td>Cement</td> </tr> <tr> <td></td> <td>Native Backfill Material</td> </tr> <tr> <td></td> <td>Grout</td> </tr> <tr> <td></td> <td>Bentonite</td> </tr> <tr> <td></td> <td>Sand</td> </tr> </table> |                |                                                                                                                                                                                                                                             | Cement                                    |                                                                                                                                                                                                                                                                             | Native Backfill Material                                                                                        |           | Grout     |                 | Bentonite      |          | Sand       |             |                                                       |  |                                                                                   |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                  | Cement                                    |                                                                                                                                                                                                                                             |                |                                                                                                                                                                                                                                             |                                           |                                                                                                                                                                                                                                                                             |                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                  | Native Backfill Material                  |                                                                                                                                                                                                                                             |                |                                                                                                                                                                                                                                             |                                           |                                                                                                                                                                                                                                                                             |                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                  | Grout                                     |                                                                                                                                                                                                                                             |                |                                                                                                                                                                                                                                             |                                           |                                                                                                                                                                                                                                                                             |                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                  | Bentonite                                 |                                                                                                                                                                                                                                             |                |                                                                                                                                                                                                                                             |                                           |                                                                                                                                                                                                                                                                             |                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                  | Sand                                      |                                                                                                                                                                                                                                             |                |                                                                                                                                                                                                                                             |                                           |                                                                                                                                                                                                                                                                             |                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
| Remarks: 1) Stratification lines represent approximate boundaries between soil types and the transition may be gradual. Water level readings have been completed at times and under condons stated. Fluctuations of groundwater may occur due to factors other than those present at the time measurements were made.<br>2) Sample is designated as either "C" for composite or "GS" for a discrete grab sample. |                                           |                                                                                                                                                                                                                                             |                |                                                                                                                                                                                                                                             |                                           |                                                                                                                                                                                                                                                                             |                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |

|  <b>Sovereign Consulting Inc.</b><br>16 Chestnut Street, Ste 520<br>Foxborough, MA 02035                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          | Boring/Well ID: <b>PZ-12-05</b>                                                                                                                       |                | Sheet <u>  1  </u> of <u>  1  </u>                                                                                                                                                                                                          |            |                                                                                                     |         |           |           |                 |                |          |            |                                                                                       |                                                       |  |                                                                                   |  |  |  |   |       |     |         |    |   |   |  |  |  |  |  |                                                                                     |    |  |  |  |  |  |    |      |       |         |    |   |    |  |  |  |  |  |                                                                                   |    |       |       |         |    |   |    |  |  |  |  |  |    |  |  |  |  |  |                                                                                               |    |       |       |         |    |   |    |  |  |  |  |  |    |       |       |         |    |   |                                                                   |    |  |  |  |  |  |    |  |  |  |  |  |    |       |       |         |    |   |                                                                                                     |    |  |  |  |  |  |    |  |  |  |  |  |    |  |  |  |  |  |                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |      |  |  |                                                                                       |        |  |                                                                                       |                          |  |                                                                                       |       |  |                                                                                       |           |  |                                                                                       |      |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-----------------------------------------------------------------------------------------------------|---------|-----------|-----------|-----------------|----------------|----------|------------|---------------------------------------------------------------------------------------|-------------------------------------------------------|--|-----------------------------------------------------------------------------------|--|--|--|---|-------|-----|---------|----|---|---|--|--|--|--|--|-------------------------------------------------------------------------------------|----|--|--|--|--|--|----|------|-------|---------|----|---|----|--|--|--|--|--|-----------------------------------------------------------------------------------|----|-------|-------|---------|----|---|----|--|--|--|--|--|----|--|--|--|--|--|-----------------------------------------------------------------------------------------------|----|-------|-------|---------|----|---|----|--|--|--|--|--|----|-------|-------|---------|----|---|-------------------------------------------------------------------|----|--|--|--|--|--|----|--|--|--|--|--|----|-------|-------|---------|----|---|-----------------------------------------------------------------------------------------------------|----|--|--|--|--|--|----|--|--|--|--|--|----|--|--|--|--|--|---------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------|--|--|---------------------------------------------------------------------------------------|--------|--|---------------------------------------------------------------------------------------|--------------------------|--|---------------------------------------------------------------------------------------|-------|--|---------------------------------------------------------------------------------------|-----------|--|---------------------------------------------------------------------------------------|------|--|
| Client: U.S.A.C.E.<br>Project: Shepley's Hill Landfill Barrier Wall<br>Project Number: AC001.02B<br>Location: Fort Devens, MA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                          | Drilling Co.: TDS <sup>1</sup><br>Drill Rig: HSA <sup>2</sup> ATV<br>Drill Method: Hollow Stem Auger<br>Foreman: Brett<br>SCI Inspector: Mykel Mendes |                | <table border="1"> <tr> <th>Casing</th> <th>Sampler</th> </tr> <tr> <td>Type: PVC</td> <td>NA</td> </tr> <tr> <td>Size: 2"</td> <td>NA</td> </tr> <tr> <td>Hammer</td> <td>NA</td> </tr> <tr> <td>Pneumatic</td> <td>NA</td> </tr> </table> |            | Casing                                                                                              | Sampler | Type: PVC | NA        | Size: 2"        | NA             | Hammer   | NA         | Pneumatic                                                                             | NA                                                    |  |                                                                                   |  |  |  |   |       |     |         |    |   |   |  |  |  |  |  |                                                                                     |    |  |  |  |  |  |    |      |       |         |    |   |    |  |  |  |  |  |                                                                                   |    |       |       |         |    |   |    |  |  |  |  |  |    |  |  |  |  |  |                                                                                               |    |       |       |         |    |   |    |  |  |  |  |  |    |       |       |         |    |   |                                                                   |    |  |  |  |  |  |    |  |  |  |  |  |    |       |       |         |    |   |                                                                                                     |    |  |  |  |  |  |    |  |  |  |  |  |    |  |  |  |  |  |                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |      |  |  |                                                                                       |        |  |                                                                                       |                          |  |                                                                                       |       |  |                                                                                       |           |  |                                                                                       |      |  |
| Casing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Sampler                  |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                     |         |           |           |                 |                |          |            |                                                                                       |                                                       |  |                                                                                   |  |  |  |   |       |     |         |    |   |   |  |  |  |  |  |                                                                                     |    |  |  |  |  |  |    |      |       |         |    |   |    |  |  |  |  |  |                                                                                   |    |       |       |         |    |   |    |  |  |  |  |  |    |  |  |  |  |  |                                                                                               |    |       |       |         |    |   |    |  |  |  |  |  |    |       |       |         |    |   |                                                                   |    |  |  |  |  |  |    |  |  |  |  |  |    |       |       |         |    |   |                                                                                                     |    |  |  |  |  |  |    |  |  |  |  |  |    |  |  |  |  |  |                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |      |  |  |                                                                                       |        |  |                                                                                       |                          |  |                                                                                       |       |  |                                                                                       |           |  |                                                                                       |      |  |
| Type: PVC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | NA                       |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                     |         |           |           |                 |                |          |            |                                                                                       |                                                       |  |                                                                                   |  |  |  |   |       |     |         |    |   |   |  |  |  |  |  |                                                                                     |    |  |  |  |  |  |    |      |       |         |    |   |    |  |  |  |  |  |                                                                                   |    |       |       |         |    |   |    |  |  |  |  |  |    |  |  |  |  |  |                                                                                               |    |       |       |         |    |   |    |  |  |  |  |  |    |       |       |         |    |   |                                                                   |    |  |  |  |  |  |    |  |  |  |  |  |    |       |       |         |    |   |                                                                                                     |    |  |  |  |  |  |    |  |  |  |  |  |    |  |  |  |  |  |                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |      |  |  |                                                                                       |        |  |                                                                                       |                          |  |                                                                                       |       |  |                                                                                       |           |  |                                                                                       |      |  |
| Size: 2"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | NA                       |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                     |         |           |           |                 |                |          |            |                                                                                       |                                                       |  |                                                                                   |  |  |  |   |       |     |         |    |   |   |  |  |  |  |  |                                                                                     |    |  |  |  |  |  |    |      |       |         |    |   |    |  |  |  |  |  |                                                                                   |    |       |       |         |    |   |    |  |  |  |  |  |    |  |  |  |  |  |                                                                                               |    |       |       |         |    |   |    |  |  |  |  |  |    |       |       |         |    |   |                                                                   |    |  |  |  |  |  |    |  |  |  |  |  |    |       |       |         |    |   |                                                                                                     |    |  |  |  |  |  |    |  |  |  |  |  |    |  |  |  |  |  |                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |      |  |  |                                                                                       |        |  |                                                                                       |                          |  |                                                                                       |       |  |                                                                                       |           |  |                                                                                       |      |  |
| Hammer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | NA                       |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                     |         |           |           |                 |                |          |            |                                                                                       |                                                       |  |                                                                                   |  |  |  |   |       |     |         |    |   |   |  |  |  |  |  |                                                                                     |    |  |  |  |  |  |    |      |       |         |    |   |    |  |  |  |  |  |                                                                                   |    |       |       |         |    |   |    |  |  |  |  |  |    |  |  |  |  |  |                                                                                               |    |       |       |         |    |   |    |  |  |  |  |  |    |       |       |         |    |   |                                                                   |    |  |  |  |  |  |    |  |  |  |  |  |    |       |       |         |    |   |                                                                                                     |    |  |  |  |  |  |    |  |  |  |  |  |    |  |  |  |  |  |                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |      |  |  |                                                                                       |        |  |                                                                                       |                          |  |                                                                                       |       |  |                                                                                       |           |  |                                                                                       |      |  |
| Pneumatic                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | NA                       |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                     |         |           |           |                 |                |          |            |                                                                                       |                                                       |  |                                                                                   |  |  |  |   |       |     |         |    |   |   |  |  |  |  |  |                                                                                     |    |  |  |  |  |  |    |      |       |         |    |   |    |  |  |  |  |  |                                                                                   |    |       |       |         |    |   |    |  |  |  |  |  |    |  |  |  |  |  |                                                                                               |    |       |       |         |    |   |    |  |  |  |  |  |    |       |       |         |    |   |                                                                   |    |  |  |  |  |  |    |  |  |  |  |  |    |       |       |         |    |   |                                                                                                     |    |  |  |  |  |  |    |  |  |  |  |  |    |  |  |  |  |  |                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |      |  |  |                                                                                       |        |  |                                                                                       |                          |  |                                                                                       |       |  |                                                                                       |           |  |                                                                                       |      |  |
| <table border="1"> <tr> <th colspan="6">Sample Information</th> </tr> <tr> <th>Depth</th> <th>Sample ID</th> <th>Pen./Rec. (in.)</th> <th>Interval (ft.)</th> <th>Blows/6"</th> <th>PID (ppmv)</th> <th>Sample Type</th> </tr> </table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                          | Sample Information                                                                                                                                    |                |                                                                                                                                                                                                                                             |            |                                                                                                     |         | Depth     | Sample ID | Pen./Rec. (in.) | Interval (ft.) | Blows/6" | PID (ppmv) | Sample Type                                                                           | Start Date: 10/10/2012<br>Completion Date: 10/10/2012 |  | Casing Elevation: 238.70<br>Surface Elevation: 236.65<br>Wellhead Type: Standpipe |  |  |  |   |       |     |         |    |   |   |  |  |  |  |  |                                                                                     |    |  |  |  |  |  |    |      |       |         |    |   |    |  |  |  |  |  |                                                                                   |    |       |       |         |    |   |    |  |  |  |  |  |    |  |  |  |  |  |                                                                                               |    |       |       |         |    |   |    |  |  |  |  |  |    |       |       |         |    |   |                                                                   |    |  |  |  |  |  |    |  |  |  |  |  |    |       |       |         |    |   |                                                                                                     |    |  |  |  |  |  |    |  |  |  |  |  |    |  |  |  |  |  |                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |      |  |  |                                                                                       |        |  |                                                                                       |                          |  |                                                                                       |       |  |                                                                                       |           |  |                                                                                       |      |  |
| Sample Information                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                     |         |           |           |                 |                |          |            |                                                                                       |                                                       |  |                                                                                   |  |  |  |   |       |     |         |    |   |   |  |  |  |  |  |                                                                                     |    |  |  |  |  |  |    |      |       |         |    |   |    |  |  |  |  |  |                                                                                   |    |       |       |         |    |   |    |  |  |  |  |  |    |  |  |  |  |  |                                                                                               |    |       |       |         |    |   |    |  |  |  |  |  |    |       |       |         |    |   |                                                                   |    |  |  |  |  |  |    |  |  |  |  |  |    |       |       |         |    |   |                                                                                                     |    |  |  |  |  |  |    |  |  |  |  |  |    |  |  |  |  |  |                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |      |  |  |                                                                                       |        |  |                                                                                       |                          |  |                                                                                       |       |  |                                                                                       |           |  |                                                                                       |      |  |
| Depth                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Sample ID                | Pen./Rec. (in.)                                                                                                                                       | Interval (ft.) | Blows/6"                                                                                                                                                                                                                                    | PID (ppmv) | Sample Type                                                                                         |         |           |           |                 |                |          |            |                                                                                       |                                                       |  |                                                                                   |  |  |  |   |       |     |         |    |   |   |  |  |  |  |  |                                                                                     |    |  |  |  |  |  |    |      |       |         |    |   |    |  |  |  |  |  |                                                                                   |    |       |       |         |    |   |    |  |  |  |  |  |    |  |  |  |  |  |                                                                                               |    |       |       |         |    |   |    |  |  |  |  |  |    |       |       |         |    |   |                                                                   |    |  |  |  |  |  |    |  |  |  |  |  |    |       |       |         |    |   |                                                                                                     |    |  |  |  |  |  |    |  |  |  |  |  |    |  |  |  |  |  |                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |      |  |  |                                                                                       |        |  |                                                                                       |                          |  |                                                                                       |       |  |                                                                                       |           |  |                                                                                       |      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          | <table border="1"> <tr> <th>Stratum Change (ft.)</th> <th>Notes</th> <th>Test Boring/ Monitoring Well Construction</th> </tr> </table>                |                | Stratum Change (ft.)                                                                                                                                                                                                                        | Notes      | Test Boring/ Monitoring Well Construction                                                           |         |           |           |                 |                |          |            |                                                                                       |                                                       |  |                                                                                   |  |  |  |   |       |     |         |    |   |   |  |  |  |  |  |                                                                                     |    |  |  |  |  |  |    |      |       |         |    |   |    |  |  |  |  |  |                                                                                   |    |       |       |         |    |   |    |  |  |  |  |  |    |  |  |  |  |  |                                                                                               |    |       |       |         |    |   |    |  |  |  |  |  |    |       |       |         |    |   |                                                                   |    |  |  |  |  |  |    |  |  |  |  |  |    |       |       |         |    |   |                                                                                                     |    |  |  |  |  |  |    |  |  |  |  |  |    |  |  |  |  |  |                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |      |  |  |                                                                                       |        |  |                                                                                       |                          |  |                                                                                       |       |  |                                                                                       |           |  |                                                                                       |      |  |
| Stratum Change (ft.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Notes                    | Test Boring/ Monitoring Well Construction                                                                                                             |                |                                                                                                                                                                                                                                             |            |                                                                                                     |         |           |           |                 |                |          |            |                                                                                       |                                                       |  |                                                                                   |  |  |  |   |       |     |         |    |   |   |  |  |  |  |  |                                                                                     |    |  |  |  |  |  |    |      |       |         |    |   |    |  |  |  |  |  |                                                                                   |    |       |       |         |    |   |    |  |  |  |  |  |    |  |  |  |  |  |                                                                                               |    |       |       |         |    |   |    |  |  |  |  |  |    |       |       |         |    |   |                                                                   |    |  |  |  |  |  |    |  |  |  |  |  |    |       |       |         |    |   |                                                                                                     |    |  |  |  |  |  |    |  |  |  |  |  |    |  |  |  |  |  |                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |      |  |  |                                                                                       |        |  |                                                                                       |                          |  |                                                                                       |       |  |                                                                                       |           |  |                                                                                       |      |  |
| <table border="1"> <tr> <th colspan="6">Sample Description</th> </tr> <tr> <td>2</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td rowspan="3">2.5Y (4/4) olive brown, dry, well sorted fine to med. sands, trace subrounded gravel.</td> </tr> <tr> <td>4</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>6</td> <td>12/24</td> <td>5-7</td> <td>4-5-5-4</td> <td>NA</td> <td>C</td> </tr> <tr> <td>8</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td rowspan="3">2.5Y (4/3) olive brown, dry well graded fine to medium sand, little rounded gravel.</td> </tr> <tr> <td>10</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>12</td> <td>7/24</td> <td>10-12</td> <td>7-4-4-5</td> <td>NA</td> <td>C</td> </tr> <tr> <td>14</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td rowspan="3">2.5Y (4/4) olive brown, dry well graded fine to med. Sand, little rounded gravel.</td> </tr> <tr> <td>16</td> <td>14/24</td> <td>15-17</td> <td>6-6-5-6</td> <td>NA</td> <td>C</td> </tr> <tr> <td>18</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>20</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td rowspan="3">2.5Y (4/4) olive brown, wet, sat. well sorted fine to med. Sands, trace fine rounded gravels.</td> </tr> <tr> <td>22</td> <td>14/24</td> <td>20-22</td> <td>2-1-2-3</td> <td>NA</td> <td>C</td> </tr> <tr> <td>24</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>26</td> <td>21/24</td> <td>25-27</td> <td>2-2-3-6</td> <td>NA</td> <td>C</td> <td rowspan="3">2.5Y (4/4) olive brown, wet, sat. well sorted fine to med. Sands.</td> </tr> <tr> <td>28</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>30</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>32</td> <td>24/24</td> <td>30-32</td> <td>2-1-2-5</td> <td>NA</td> <td>C</td> <td rowspan="3">2.5Y (5/4) light olive brown, wet, sat., well sorted fine to med. Sands, trace fine rounded gravel.</td> </tr> <tr> <td>34</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>36</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>38</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>No split spoon sampled collected to to avoid hole from collapsing at 37'.</td> </tr> </table> |                          | Sample Description                                                                                                                                    |                |                                                                                                                                                                                                                                             |            |                                                                                                     |         | 2         |           |                 |                |          |            | 2.5Y (4/4) olive brown, dry, well sorted fine to med. sands, trace subrounded gravel. | 4                                                     |  |                                                                                   |  |  |  | 6 | 12/24 | 5-7 | 4-5-5-4 | NA | C | 8 |  |  |  |  |  | 2.5Y (4/3) olive brown, dry well graded fine to medium sand, little rounded gravel. | 10 |  |  |  |  |  | 12 | 7/24 | 10-12 | 7-4-4-5 | NA | C | 14 |  |  |  |  |  | 2.5Y (4/4) olive brown, dry well graded fine to med. Sand, little rounded gravel. | 16 | 14/24 | 15-17 | 6-6-5-6 | NA | C | 18 |  |  |  |  |  | 20 |  |  |  |  |  | 2.5Y (4/4) olive brown, wet, sat. well sorted fine to med. Sands, trace fine rounded gravels. | 22 | 14/24 | 20-22 | 2-1-2-3 | NA | C | 24 |  |  |  |  |  | 26 | 21/24 | 25-27 | 2-2-3-6 | NA | C | 2.5Y (4/4) olive brown, wet, sat. well sorted fine to med. Sands. | 28 |  |  |  |  |  | 30 |  |  |  |  |  | 32 | 24/24 | 30-32 | 2-1-2-5 | NA | C | 2.5Y (5/4) light olive brown, wet, sat., well sorted fine to med. Sands, trace fine rounded gravel. | 34 |  |  |  |  |  | 36 |  |  |  |  |  | 38 |  |  |  |  |  | No split spoon sampled collected to to avoid hole from collapsing at 37'. | <table border="1"> <tr> <th colspan="3">Key:</th> </tr> <tr> <td></td> <td>Cement</td> <td></td> </tr> <tr> <td></td> <td>Native Backfill Material</td> <td></td> </tr> <tr> <td></td> <td>Grout</td> <td></td> </tr> <tr> <td></td> <td>Bentonite</td> <td></td> </tr> <tr> <td></td> <td>Sand</td> <td></td> </tr> </table> |  | Key: |  |  |  | Cement |  |  | Native Backfill Material |  |  | Grout |  |  | Bentonite |  |  | Sand |  |
| Sample Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                     |         |           |           |                 |                |          |            |                                                                                       |                                                       |  |                                                                                   |  |  |  |   |       |     |         |    |   |   |  |  |  |  |  |                                                                                     |    |  |  |  |  |  |    |      |       |         |    |   |    |  |  |  |  |  |                                                                                   |    |       |       |         |    |   |    |  |  |  |  |  |    |  |  |  |  |  |                                                                                               |    |       |       |         |    |   |    |  |  |  |  |  |    |       |       |         |    |   |                                                                   |    |  |  |  |  |  |    |  |  |  |  |  |    |       |       |         |    |   |                                                                                                     |    |  |  |  |  |  |    |  |  |  |  |  |    |  |  |  |  |  |                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |      |  |  |                                                                                       |        |  |                                                                                       |                          |  |                                                                                       |       |  |                                                                                       |           |  |                                                                                       |      |  |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                          |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            | 2.5Y (4/4) olive brown, dry, well sorted fine to med. sands, trace subrounded gravel.               |         |           |           |                 |                |          |            |                                                                                       |                                                       |  |                                                                                   |  |  |  |   |       |     |         |    |   |   |  |  |  |  |  |                                                                                     |    |  |  |  |  |  |    |      |       |         |    |   |    |  |  |  |  |  |                                                                                   |    |       |       |         |    |   |    |  |  |  |  |  |    |  |  |  |  |  |                                                                                               |    |       |       |         |    |   |    |  |  |  |  |  |    |       |       |         |    |   |                                                                   |    |  |  |  |  |  |    |  |  |  |  |  |    |       |       |         |    |   |                                                                                                     |    |  |  |  |  |  |    |  |  |  |  |  |    |  |  |  |  |  |                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |      |  |  |                                                                                       |        |  |                                                                                       |                          |  |                                                                                       |       |  |                                                                                       |           |  |                                                                                       |      |  |
| 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                          |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                     |         |           |           |                 |                |          |            |                                                                                       |                                                       |  |                                                                                   |  |  |  |   |       |     |         |    |   |   |  |  |  |  |  |                                                                                     |    |  |  |  |  |  |    |      |       |         |    |   |    |  |  |  |  |  |                                                                                   |    |       |       |         |    |   |    |  |  |  |  |  |    |  |  |  |  |  |                                                                                               |    |       |       |         |    |   |    |  |  |  |  |  |    |       |       |         |    |   |                                                                   |    |  |  |  |  |  |    |  |  |  |  |  |    |       |       |         |    |   |                                                                                                     |    |  |  |  |  |  |    |  |  |  |  |  |    |  |  |  |  |  |                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |      |  |  |                                                                                       |        |  |                                                                                       |                          |  |                                                                                       |       |  |                                                                                       |           |  |                                                                                       |      |  |
| 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 12/24                    | 5-7                                                                                                                                                   | 4-5-5-4        | NA                                                                                                                                                                                                                                          | C          |                                                                                                     |         |           |           |                 |                |          |            |                                                                                       |                                                       |  |                                                                                   |  |  |  |   |       |     |         |    |   |   |  |  |  |  |  |                                                                                     |    |  |  |  |  |  |    |      |       |         |    |   |    |  |  |  |  |  |                                                                                   |    |       |       |         |    |   |    |  |  |  |  |  |    |  |  |  |  |  |                                                                                               |    |       |       |         |    |   |    |  |  |  |  |  |    |       |       |         |    |   |                                                                   |    |  |  |  |  |  |    |  |  |  |  |  |    |       |       |         |    |   |                                                                                                     |    |  |  |  |  |  |    |  |  |  |  |  |    |  |  |  |  |  |                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |      |  |  |                                                                                       |        |  |                                                                                       |                          |  |                                                                                       |       |  |                                                                                       |           |  |                                                                                       |      |  |
| 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                          |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            | 2.5Y (4/3) olive brown, dry well graded fine to medium sand, little rounded gravel.                 |         |           |           |                 |                |          |            |                                                                                       |                                                       |  |                                                                                   |  |  |  |   |       |     |         |    |   |   |  |  |  |  |  |                                                                                     |    |  |  |  |  |  |    |      |       |         |    |   |    |  |  |  |  |  |                                                                                   |    |       |       |         |    |   |    |  |  |  |  |  |    |  |  |  |  |  |                                                                                               |    |       |       |         |    |   |    |  |  |  |  |  |    |       |       |         |    |   |                                                                   |    |  |  |  |  |  |    |  |  |  |  |  |    |       |       |         |    |   |                                                                                                     |    |  |  |  |  |  |    |  |  |  |  |  |    |  |  |  |  |  |                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |      |  |  |                                                                                       |        |  |                                                                                       |                          |  |                                                                                       |       |  |                                                                                       |           |  |                                                                                       |      |  |
| 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                     |         |           |           |                 |                |          |            |                                                                                       |                                                       |  |                                                                                   |  |  |  |   |       |     |         |    |   |   |  |  |  |  |  |                                                                                     |    |  |  |  |  |  |    |      |       |         |    |   |    |  |  |  |  |  |                                                                                   |    |       |       |         |    |   |    |  |  |  |  |  |    |  |  |  |  |  |                                                                                               |    |       |       |         |    |   |    |  |  |  |  |  |    |       |       |         |    |   |                                                                   |    |  |  |  |  |  |    |  |  |  |  |  |    |       |       |         |    |   |                                                                                                     |    |  |  |  |  |  |    |  |  |  |  |  |    |  |  |  |  |  |                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |      |  |  |                                                                                       |        |  |                                                                                       |                          |  |                                                                                       |       |  |                                                                                       |           |  |                                                                                       |      |  |
| 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 7/24                     | 10-12                                                                                                                                                 | 7-4-4-5        | NA                                                                                                                                                                                                                                          | C          |                                                                                                     |         |           |           |                 |                |          |            |                                                                                       |                                                       |  |                                                                                   |  |  |  |   |       |     |         |    |   |   |  |  |  |  |  |                                                                                     |    |  |  |  |  |  |    |      |       |         |    |   |    |  |  |  |  |  |                                                                                   |    |       |       |         |    |   |    |  |  |  |  |  |    |  |  |  |  |  |                                                                                               |    |       |       |         |    |   |    |  |  |  |  |  |    |       |       |         |    |   |                                                                   |    |  |  |  |  |  |    |  |  |  |  |  |    |       |       |         |    |   |                                                                                                     |    |  |  |  |  |  |    |  |  |  |  |  |    |  |  |  |  |  |                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |      |  |  |                                                                                       |        |  |                                                                                       |                          |  |                                                                                       |       |  |                                                                                       |           |  |                                                                                       |      |  |
| 14                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            | 2.5Y (4/4) olive brown, dry well graded fine to med. Sand, little rounded gravel.                   |         |           |           |                 |                |          |            |                                                                                       |                                                       |  |                                                                                   |  |  |  |   |       |     |         |    |   |   |  |  |  |  |  |                                                                                     |    |  |  |  |  |  |    |      |       |         |    |   |    |  |  |  |  |  |                                                                                   |    |       |       |         |    |   |    |  |  |  |  |  |    |  |  |  |  |  |                                                                                               |    |       |       |         |    |   |    |  |  |  |  |  |    |       |       |         |    |   |                                                                   |    |  |  |  |  |  |    |  |  |  |  |  |    |       |       |         |    |   |                                                                                                     |    |  |  |  |  |  |    |  |  |  |  |  |    |  |  |  |  |  |                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |      |  |  |                                                                                       |        |  |                                                                                       |                          |  |                                                                                       |       |  |                                                                                       |           |  |                                                                                       |      |  |
| 16                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 14/24                    | 15-17                                                                                                                                                 | 6-6-5-6        | NA                                                                                                                                                                                                                                          | C          |                                                                                                     |         |           |           |                 |                |          |            |                                                                                       |                                                       |  |                                                                                   |  |  |  |   |       |     |         |    |   |   |  |  |  |  |  |                                                                                     |    |  |  |  |  |  |    |      |       |         |    |   |    |  |  |  |  |  |                                                                                   |    |       |       |         |    |   |    |  |  |  |  |  |    |  |  |  |  |  |                                                                                               |    |       |       |         |    |   |    |  |  |  |  |  |    |       |       |         |    |   |                                                                   |    |  |  |  |  |  |    |  |  |  |  |  |    |       |       |         |    |   |                                                                                                     |    |  |  |  |  |  |    |  |  |  |  |  |    |  |  |  |  |  |                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |      |  |  |                                                                                       |        |  |                                                                                       |                          |  |                                                                                       |       |  |                                                                                       |           |  |                                                                                       |      |  |
| 18                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                     |         |           |           |                 |                |          |            |                                                                                       |                                                       |  |                                                                                   |  |  |  |   |       |     |         |    |   |   |  |  |  |  |  |                                                                                     |    |  |  |  |  |  |    |      |       |         |    |   |    |  |  |  |  |  |                                                                                   |    |       |       |         |    |   |    |  |  |  |  |  |    |  |  |  |  |  |                                                                                               |    |       |       |         |    |   |    |  |  |  |  |  |    |       |       |         |    |   |                                                                   |    |  |  |  |  |  |    |  |  |  |  |  |    |       |       |         |    |   |                                                                                                     |    |  |  |  |  |  |    |  |  |  |  |  |    |  |  |  |  |  |                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |      |  |  |                                                                                       |        |  |                                                                                       |                          |  |                                                                                       |       |  |                                                                                       |           |  |                                                                                       |      |  |
| 20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            | 2.5Y (4/4) olive brown, wet, sat. well sorted fine to med. Sands, trace fine rounded gravels.       |         |           |           |                 |                |          |            |                                                                                       |                                                       |  |                                                                                   |  |  |  |   |       |     |         |    |   |   |  |  |  |  |  |                                                                                     |    |  |  |  |  |  |    |      |       |         |    |   |    |  |  |  |  |  |                                                                                   |    |       |       |         |    |   |    |  |  |  |  |  |    |  |  |  |  |  |                                                                                               |    |       |       |         |    |   |    |  |  |  |  |  |    |       |       |         |    |   |                                                                   |    |  |  |  |  |  |    |  |  |  |  |  |    |       |       |         |    |   |                                                                                                     |    |  |  |  |  |  |    |  |  |  |  |  |    |  |  |  |  |  |                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |      |  |  |                                                                                       |        |  |                                                                                       |                          |  |                                                                                       |       |  |                                                                                       |           |  |                                                                                       |      |  |
| 22                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 14/24                    | 20-22                                                                                                                                                 | 2-1-2-3        | NA                                                                                                                                                                                                                                          | C          |                                                                                                     |         |           |           |                 |                |          |            |                                                                                       |                                                       |  |                                                                                   |  |  |  |   |       |     |         |    |   |   |  |  |  |  |  |                                                                                     |    |  |  |  |  |  |    |      |       |         |    |   |    |  |  |  |  |  |                                                                                   |    |       |       |         |    |   |    |  |  |  |  |  |    |  |  |  |  |  |                                                                                               |    |       |       |         |    |   |    |  |  |  |  |  |    |       |       |         |    |   |                                                                   |    |  |  |  |  |  |    |  |  |  |  |  |    |       |       |         |    |   |                                                                                                     |    |  |  |  |  |  |    |  |  |  |  |  |    |  |  |  |  |  |                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |      |  |  |                                                                                       |        |  |                                                                                       |                          |  |                                                                                       |       |  |                                                                                       |           |  |                                                                                       |      |  |
| 24                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                     |         |           |           |                 |                |          |            |                                                                                       |                                                       |  |                                                                                   |  |  |  |   |       |     |         |    |   |   |  |  |  |  |  |                                                                                     |    |  |  |  |  |  |    |      |       |         |    |   |    |  |  |  |  |  |                                                                                   |    |       |       |         |    |   |    |  |  |  |  |  |    |  |  |  |  |  |                                                                                               |    |       |       |         |    |   |    |  |  |  |  |  |    |       |       |         |    |   |                                                                   |    |  |  |  |  |  |    |  |  |  |  |  |    |       |       |         |    |   |                                                                                                     |    |  |  |  |  |  |    |  |  |  |  |  |    |  |  |  |  |  |                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |      |  |  |                                                                                       |        |  |                                                                                       |                          |  |                                                                                       |       |  |                                                                                       |           |  |                                                                                       |      |  |
| 26                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 21/24                    | 25-27                                                                                                                                                 | 2-2-3-6        | NA                                                                                                                                                                                                                                          | C          | 2.5Y (4/4) olive brown, wet, sat. well sorted fine to med. Sands.                                   |         |           |           |                 |                |          |            |                                                                                       |                                                       |  |                                                                                   |  |  |  |   |       |     |         |    |   |   |  |  |  |  |  |                                                                                     |    |  |  |  |  |  |    |      |       |         |    |   |    |  |  |  |  |  |                                                                                   |    |       |       |         |    |   |    |  |  |  |  |  |    |  |  |  |  |  |                                                                                               |    |       |       |         |    |   |    |  |  |  |  |  |    |       |       |         |    |   |                                                                   |    |  |  |  |  |  |    |  |  |  |  |  |    |       |       |         |    |   |                                                                                                     |    |  |  |  |  |  |    |  |  |  |  |  |    |  |  |  |  |  |                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |      |  |  |                                                                                       |        |  |                                                                                       |                          |  |                                                                                       |       |  |                                                                                       |           |  |                                                                                       |      |  |
| 28                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                     |         |           |           |                 |                |          |            |                                                                                       |                                                       |  |                                                                                   |  |  |  |   |       |     |         |    |   |   |  |  |  |  |  |                                                                                     |    |  |  |  |  |  |    |      |       |         |    |   |    |  |  |  |  |  |                                                                                   |    |       |       |         |    |   |    |  |  |  |  |  |    |  |  |  |  |  |                                                                                               |    |       |       |         |    |   |    |  |  |  |  |  |    |       |       |         |    |   |                                                                   |    |  |  |  |  |  |    |  |  |  |  |  |    |       |       |         |    |   |                                                                                                     |    |  |  |  |  |  |    |  |  |  |  |  |    |  |  |  |  |  |                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |      |  |  |                                                                                       |        |  |                                                                                       |                          |  |                                                                                       |       |  |                                                                                       |           |  |                                                                                       |      |  |
| 30                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                     |         |           |           |                 |                |          |            |                                                                                       |                                                       |  |                                                                                   |  |  |  |   |       |     |         |    |   |   |  |  |  |  |  |                                                                                     |    |  |  |  |  |  |    |      |       |         |    |   |    |  |  |  |  |  |                                                                                   |    |       |       |         |    |   |    |  |  |  |  |  |    |  |  |  |  |  |                                                                                               |    |       |       |         |    |   |    |  |  |  |  |  |    |       |       |         |    |   |                                                                   |    |  |  |  |  |  |    |  |  |  |  |  |    |       |       |         |    |   |                                                                                                     |    |  |  |  |  |  |    |  |  |  |  |  |    |  |  |  |  |  |                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |      |  |  |                                                                                       |        |  |                                                                                       |                          |  |                                                                                       |       |  |                                                                                       |           |  |                                                                                       |      |  |
| 32                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 24/24                    | 30-32                                                                                                                                                 | 2-1-2-5        | NA                                                                                                                                                                                                                                          | C          | 2.5Y (5/4) light olive brown, wet, sat., well sorted fine to med. Sands, trace fine rounded gravel. |         |           |           |                 |                |          |            |                                                                                       |                                                       |  |                                                                                   |  |  |  |   |       |     |         |    |   |   |  |  |  |  |  |                                                                                     |    |  |  |  |  |  |    |      |       |         |    |   |    |  |  |  |  |  |                                                                                   |    |       |       |         |    |   |    |  |  |  |  |  |    |  |  |  |  |  |                                                                                               |    |       |       |         |    |   |    |  |  |  |  |  |    |       |       |         |    |   |                                                                   |    |  |  |  |  |  |    |  |  |  |  |  |    |       |       |         |    |   |                                                                                                     |    |  |  |  |  |  |    |  |  |  |  |  |    |  |  |  |  |  |                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |      |  |  |                                                                                       |        |  |                                                                                       |                          |  |                                                                                       |       |  |                                                                                       |           |  |                                                                                       |      |  |
| 34                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                     |         |           |           |                 |                |          |            |                                                                                       |                                                       |  |                                                                                   |  |  |  |   |       |     |         |    |   |   |  |  |  |  |  |                                                                                     |    |  |  |  |  |  |    |      |       |         |    |   |    |  |  |  |  |  |                                                                                   |    |       |       |         |    |   |    |  |  |  |  |  |    |  |  |  |  |  |                                                                                               |    |       |       |         |    |   |    |  |  |  |  |  |    |       |       |         |    |   |                                                                   |    |  |  |  |  |  |    |  |  |  |  |  |    |       |       |         |    |   |                                                                                                     |    |  |  |  |  |  |    |  |  |  |  |  |    |  |  |  |  |  |                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |      |  |  |                                                                                       |        |  |                                                                                       |                          |  |                                                                                       |       |  |                                                                                       |           |  |                                                                                       |      |  |
| 36                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                     |         |           |           |                 |                |          |            |                                                                                       |                                                       |  |                                                                                   |  |  |  |   |       |     |         |    |   |   |  |  |  |  |  |                                                                                     |    |  |  |  |  |  |    |      |       |         |    |   |    |  |  |  |  |  |                                                                                   |    |       |       |         |    |   |    |  |  |  |  |  |    |  |  |  |  |  |                                                                                               |    |       |       |         |    |   |    |  |  |  |  |  |    |       |       |         |    |   |                                                                   |    |  |  |  |  |  |    |  |  |  |  |  |    |       |       |         |    |   |                                                                                                     |    |  |  |  |  |  |    |  |  |  |  |  |    |  |  |  |  |  |                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |      |  |  |                                                                                       |        |  |                                                                                       |                          |  |                                                                                       |       |  |                                                                                       |           |  |                                                                                       |      |  |
| 38                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            | No split spoon sampled collected to to avoid hole from collapsing at 37'.                           |         |           |           |                 |                |          |            |                                                                                       |                                                       |  |                                                                                   |  |  |  |   |       |     |         |    |   |   |  |  |  |  |  |                                                                                     |    |  |  |  |  |  |    |      |       |         |    |   |    |  |  |  |  |  |                                                                                   |    |       |       |         |    |   |    |  |  |  |  |  |    |  |  |  |  |  |                                                                                               |    |       |       |         |    |   |    |  |  |  |  |  |    |       |       |         |    |   |                                                                   |    |  |  |  |  |  |    |  |  |  |  |  |    |       |       |         |    |   |                                                                                                     |    |  |  |  |  |  |    |  |  |  |  |  |    |  |  |  |  |  |                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |      |  |  |                                                                                       |        |  |                                                                                       |                          |  |                                                                                       |       |  |                                                                                       |           |  |                                                                                       |      |  |
| Key:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                     |         |           |           |                 |                |          |            |                                                                                       |                                                       |  |                                                                                   |  |  |  |   |       |     |         |    |   |   |  |  |  |  |  |                                                                                     |    |  |  |  |  |  |    |      |       |         |    |   |    |  |  |  |  |  |                                                                                   |    |       |       |         |    |   |    |  |  |  |  |  |    |  |  |  |  |  |                                                                                               |    |       |       |         |    |   |    |  |  |  |  |  |    |       |       |         |    |   |                                                                   |    |  |  |  |  |  |    |  |  |  |  |  |    |       |       |         |    |   |                                                                                                     |    |  |  |  |  |  |    |  |  |  |  |  |    |  |  |  |  |  |                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |      |  |  |                                                                                       |        |  |                                                                                       |                          |  |                                                                                       |       |  |                                                                                       |           |  |                                                                                       |      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Cement                   |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                     |         |           |           |                 |                |          |            |                                                                                       |                                                       |  |                                                                                   |  |  |  |   |       |     |         |    |   |   |  |  |  |  |  |                                                                                     |    |  |  |  |  |  |    |      |       |         |    |   |    |  |  |  |  |  |                                                                                   |    |       |       |         |    |   |    |  |  |  |  |  |    |  |  |  |  |  |                                                                                               |    |       |       |         |    |   |    |  |  |  |  |  |    |       |       |         |    |   |                                                                   |    |  |  |  |  |  |    |  |  |  |  |  |    |       |       |         |    |   |                                                                                                     |    |  |  |  |  |  |    |  |  |  |  |  |    |  |  |  |  |  |                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |      |  |  |                                                                                       |        |  |                                                                                       |                          |  |                                                                                       |       |  |                                                                                       |           |  |                                                                                       |      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Native Backfill Material |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                     |         |           |           |                 |                |          |            |                                                                                       |                                                       |  |                                                                                   |  |  |  |   |       |     |         |    |   |   |  |  |  |  |  |                                                                                     |    |  |  |  |  |  |    |      |       |         |    |   |    |  |  |  |  |  |                                                                                   |    |       |       |         |    |   |    |  |  |  |  |  |    |  |  |  |  |  |                                                                                               |    |       |       |         |    |   |    |  |  |  |  |  |    |       |       |         |    |   |                                                                   |    |  |  |  |  |  |    |  |  |  |  |  |    |       |       |         |    |   |                                                                                                     |    |  |  |  |  |  |    |  |  |  |  |  |    |  |  |  |  |  |                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |      |  |  |                                                                                       |        |  |                                                                                       |                          |  |                                                                                       |       |  |                                                                                       |           |  |                                                                                       |      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Grout                    |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                     |         |           |           |                 |                |          |            |                                                                                       |                                                       |  |                                                                                   |  |  |  |   |       |     |         |    |   |   |  |  |  |  |  |                                                                                     |    |  |  |  |  |  |    |      |       |         |    |   |    |  |  |  |  |  |                                                                                   |    |       |       |         |    |   |    |  |  |  |  |  |    |  |  |  |  |  |                                                                                               |    |       |       |         |    |   |    |  |  |  |  |  |    |       |       |         |    |   |                                                                   |    |  |  |  |  |  |    |  |  |  |  |  |    |       |       |         |    |   |                                                                                                     |    |  |  |  |  |  |    |  |  |  |  |  |    |  |  |  |  |  |                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |      |  |  |                                                                                       |        |  |                                                                                       |                          |  |                                                                                       |       |  |                                                                                       |           |  |                                                                                       |      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Bentonite                |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                     |         |           |           |                 |                |          |            |                                                                                       |                                                       |  |                                                                                   |  |  |  |   |       |     |         |    |   |   |  |  |  |  |  |                                                                                     |    |  |  |  |  |  |    |      |       |         |    |   |    |  |  |  |  |  |                                                                                   |    |       |       |         |    |   |    |  |  |  |  |  |    |  |  |  |  |  |                                                                                               |    |       |       |         |    |   |    |  |  |  |  |  |    |       |       |         |    |   |                                                                   |    |  |  |  |  |  |    |  |  |  |  |  |    |       |       |         |    |   |                                                                                                     |    |  |  |  |  |  |    |  |  |  |  |  |    |  |  |  |  |  |                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |      |  |  |                                                                                       |        |  |                                                                                       |                          |  |                                                                                       |       |  |                                                                                       |           |  |                                                                                       |      |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Sand                     |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                     |         |           |           |                 |                |          |            |                                                                                       |                                                       |  |                                                                                   |  |  |  |   |       |     |         |    |   |   |  |  |  |  |  |                                                                                     |    |  |  |  |  |  |    |      |       |         |    |   |    |  |  |  |  |  |                                                                                   |    |       |       |         |    |   |    |  |  |  |  |  |    |  |  |  |  |  |                                                                                               |    |       |       |         |    |   |    |  |  |  |  |  |    |       |       |         |    |   |                                                                   |    |  |  |  |  |  |    |  |  |  |  |  |    |       |       |         |    |   |                                                                                                     |    |  |  |  |  |  |    |  |  |  |  |  |    |  |  |  |  |  |                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |      |  |  |                                                                                       |        |  |                                                                                       |                          |  |                                                                                       |       |  |                                                                                       |           |  |                                                                                       |      |  |
| Remarks: 1) Stratification lines represent approximate boundaries between soil types and the transition may be gradual. Water level readings have been completed at times and under conditions stated. Fluctuations of groundwater may occur due to factors other than those present at the time measurements were made.<br>2) Sample is designated as either "C" for composite or "GS" for a discrete grab sample.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                     |         |           |           |                 |                |          |            |                                                                                       |                                                       |  |                                                                                   |  |  |  |   |       |     |         |    |   |   |  |  |  |  |  |                                                                                     |    |  |  |  |  |  |    |      |       |         |    |   |    |  |  |  |  |  |                                                                                   |    |       |       |         |    |   |    |  |  |  |  |  |    |  |  |  |  |  |                                                                                               |    |       |       |         |    |   |    |  |  |  |  |  |    |       |       |         |    |   |                                                                   |    |  |  |  |  |  |    |  |  |  |  |  |    |       |       |         |    |   |                                                                                                     |    |  |  |  |  |  |    |  |  |  |  |  |    |  |  |  |  |  |                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |      |  |  |                                                                                       |        |  |                                                                                       |                          |  |                                                                                       |       |  |                                                                                       |           |  |                                                                                       |      |  |



|  <b>Sovereign Consulting Inc.</b><br>16 Chestnut Street, Ste 520<br>Foxborough, MA 02035                                                                |           | Boring/Well ID: <b>PZ-12-06</b>                                                                                                                       |                | Sheet <u>  1  </u> of <u>  1  </u>                                                                                                                                                                                                          |            |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|-----------------|----------------|----------|------------|-------------|-------------------------------------------------------|--|-----------------------------------------------------------------------------------|--|
| Client: U.S.A.C.E.<br>Project: Shepley's Hill Landfill Barrier Wall<br>Project Number: AC001.02B<br>Location: Fort Devens, MA                                                                                                           |           | Drilling Co.: TDS <sup>1</sup><br>Drill Rig: HSA <sup>2</sup> ATV<br>Drill Method: Hollow Stem Auger<br>Foreman: Brett<br>SCI Inspector: Mykel Mendes |                | <table border="1"> <tr> <th>Casing</th> <th>Sampler</th> </tr> <tr> <td>Type: PVC</td> <td>NA</td> </tr> <tr> <td>Size: 2"</td> <td>NA</td> </tr> <tr> <td>Hammer</td> <td>NA</td> </tr> <tr> <td>Pneumatic</td> <td>NA</td> </tr> </table> |            | Casing                                                                                                                       | Sampler                                                                                                                                                                                                                                                                                                                         | Type: PVC | NA        | Size: 2"        | NA             | Hammer   | NA         | Pneumatic   | NA                                                    |  |                                                                                   |  |
| Casing                                                                                                                                                                                                                                  | Sampler   |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
| Type: PVC                                                                                                                                                                                                                               | NA        |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
| Size: 2"                                                                                                                                                                                                                                | NA        |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
| Hammer                                                                                                                                                                                                                                  | NA        |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
| Pneumatic                                                                                                                                                                                                                               | NA        |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
| <table border="1"> <tr> <th colspan="6">Sample Information</th> </tr> <tr> <th>Depth</th> <th>Sample ID</th> <th>Pen./Rec. (in.)</th> <th>Interval (Ft.)</th> <th>Blows/6"</th> <th>PID (ppmv)</th> <th>Sample Type</th> </tr> </table> |           | Sample Information                                                                                                                                    |                |                                                                                                                                                                                                                                             |            |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                 | Depth     | Sample ID | Pen./Rec. (in.) | Interval (Ft.) | Blows/6" | PID (ppmv) | Sample Type | Start Date: 10/10/2012<br>Completion Date: 10/10/2012 |  | Casing Elevation: 242.22<br>Surface Elevation: 238.77<br>Wellhead Type: Standpipe |  |
| Sample Information                                                                                                                                                                                                                      |           |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
| Depth                                                                                                                                                                                                                                   | Sample ID | Pen./Rec. (in.)                                                                                                                                       | Interval (Ft.) | Blows/6"                                                                                                                                                                                                                                    | PID (ppmv) | Sample Type                                                                                                                  |                                                                                                                                                                                                                                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
|                                                                                                                                                                                                                                         |           | <table border="1"> <tr> <th>Stratum Change (ft.)</th> <th>Notes</th> <th>Test Boring/ Monitoring Well Construction</th> </tr> </table>                |                | Stratum Change (ft.)                                                                                                                                                                                                                        | Notes      | Test Boring/ Monitoring Well Construction                                                                                    |                                                                                                                                                                                                                                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
| Stratum Change (ft.)                                                                                                                                                                                                                    | Notes     | Test Boring/ Monitoring Well Construction                                                                                                             |                |                                                                                                                                                                                                                                             |            |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
|                                                                                                                                                                                                                                         |           | <table border="1"> <tr> <th colspan="6">Sample Description</th> </tr> </table>                                                                        |                | Sample Description                                                                                                                                                                                                                          |            |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
| Sample Description                                                                                                                                                                                                                      |           |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
| 2                                                                                                                                                                                                                                       |           |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                                              |  <p>Well completed with standpipe over riser, 3 ft above ground surface</p> <p>Native backfill 1'-21'</p> <p>Bentonite, 21'-23'</p> <p>#2 Morie Sand, 35'-23'</p> <p>2" Schedule 40 PVC Screen with 2' of 0.010" Slotted Screen 25'-35'</p> |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
| 4                                                                                                                                                                                                                                       |           |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
| 6                                                                                                                                                                                                                                       |           | 8/24                                                                                                                                                  | 5-7            | 2-3-4-4                                                                                                                                                                                                                                     | NA         | 2.5Y (3/2) very dark grayish brown, dry, well graded loose med. To coarse sand, some silt, trace clay, trace rounded gravel. |                                                                                                                                                                                                                                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
| 8                                                                                                                                                                                                                                       |           |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
| 10                                                                                                                                                                                                                                      |           |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
| 12                                                                                                                                                                                                                                      |           | 13/24                                                                                                                                                 | 10-12          | 3-5-5-3                                                                                                                                                                                                                                     | NA         | 2.5Y (4/4) olive brown, dry, fine to medium sand, little coarse sand, little silt, trace rounded gravel.                     |                                                                                                                                                                                                                                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
| 14                                                                                                                                                                                                                                      |           |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
| 16                                                                                                                                                                                                                                      |           | 13/24                                                                                                                                                 | 15-17          | 2-1-2-3                                                                                                                                                                                                                                     | NA         | 2.5Y, (5/4) light olive brown, dry to damp, fine to medium sand, little silt.                                                |                                                                                                                                                                                                                                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
| 18                                                                                                                                                                                                                                      |           |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
| 20                                                                                                                                                                                                                                      |           |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
| 22                                                                                                                                                                                                                                      |           | 24/24                                                                                                                                                 | 20-22          | 2-2-2-3                                                                                                                                                                                                                                     | NA         | 2.5Y (5/4) light olive brown, wet, fine to medium sand.                                                                      |                                                                                                                                                                                                                                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
| 24                                                                                                                                                                                                                                      |           |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
| 26                                                                                                                                                                                                                                      |           | 24/24                                                                                                                                                 | 25-27          | 2-1-1-2                                                                                                                                                                                                                                     | NA         | Most 10YR (4/3) brown, trace 10YR (4/6) dark yellowish brown, wet, sat. fine to medium sand.                                 |                                                                                                                                                                                                                                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
| 28                                                                                                                                                                                                                                      |           |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
| 30                                                                                                                                                                                                                                      |           |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
| 32                                                                                                                                                                                                                                      |           | 24/24                                                                                                                                                 | 30-32          | 4-5-8-7                                                                                                                                                                                                                                     | NA         | 2.5Y (4/3) olive brown, wet, sat. fine to medium sand.                                                                       |                                                                                                                                                                                                                                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
| 34                                                                                                                                                                                                                                      |           |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |
| 36                                                                                                                                                                                                                                      |           |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                 |           |           |                 |                |          |            |             |                                                       |  |                                                                                   |  |

Notes:

- 1) Technical Drilling Services of Sterling, M/
- 2) Hollow Stem Auger
- 3) Set well at 35' bgs since well casing began to rise as auger casing was pulled out of the ho
- 4) Did not collect a 35-37' split spoon sample to avoid hole collapse, anticipated to set well at 36' bgs

Key:

|  |                          |
|--|--------------------------|
|  | Cement                   |
|  | Native Backfill Material |
|  | Grout                    |
|  | Bentonite                |
|  | Sand                     |

Remarks:

- 1) Stratification lines represent approximate boundaries between soil types and the transition may be gradual. Water level readings have been completed at times and under conditions stated. Fluctuations of groundwater may occur due to factors other than those present at the time measurements were made.
- 2) Sample is designated as either "C" for composite or "GS" for a discrete grab sample.








Sheet   1   of   1  

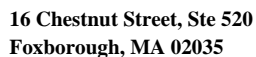
| Casing    | Sampler |
|-----------|---------|
| Type: PVC | NA      |
| Size: 2"  | NA      |
| Hammer    | NA      |
| Pneumatic | NA      |

|                    |           |
|--------------------|-----------|
| Casing Elevation:  | 244.63    |
| Surface Elevation: | 240.83    |
| Wellhead Type:     | Standpipe |

| Depth              | Sample Information |                 |                 |             |            |                           | Sample Type                                                                                                        | Start Date: 10/10/2012<br>Completion Date: 10/10/2012 |       | Casing Elevation: 244.63                                            |                                                                                                                    |                                                                                                                  |                                                                                               |                                                                                                                                    |                                                                                                                    |
|--------------------|--------------------|-----------------|-----------------|-------------|------------|---------------------------|--------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|-------|---------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
|                    | Sample ID          | Pen./Rec. (in.) | Interval (F.L.) | Blows/6"    | PID (ppmv) | Surface Elevation: 240.83 |                                                                                                                    |                                                       |       |                                                                     |                                                                                                                    |                                                                                                                  |                                                                                               |                                                                                                                                    |                                                                                                                    |
|                    |                    |                 |                 |             |            | Wellhead Type: Standpipe  |                                                                                                                    |                                                       |       |                                                                     |                                                                                                                    |                                                                                                                  |                                                                                               |                                                                                                                                    |                                                                                                                    |
| Sample Description |                    |                 |                 |             |            |                           |                                                                                                                    | Stratum Change (ft.)                                  | Notes | Test Boring/ Monitoring Well Construction                           |                                                                                                                    |                                                                                                                  |                                                                                               |                                                                                                                                    |                                                                                                                    |
| 2                  |                    |                 |                 |             |            |                           | most 2.5Y (7/2) light gray, little 2.5Y (4/2) dark grayish brown, dry well sorted fine to medium sand, trace silt. |                                                       |       | Well completed with standpipe over riser, 3 ft above ground surface |                                                                                                                    |                                                                                                                  |                                                                                               |                                                                                                                                    |                                                                                                                    |
| 4                  |                    |                 |                 |             |            |                           |                                                                                                                    |                                                       |       |                                                                     |                                                                                                                    |                                                                                                                  |                                                                                               |                                                                                                                                    |                                                                                                                    |
| 6                  |                    | 14/24           | 5-7             | 12-10-12-15 | NA         | C                         |                                                                                                                    |                                                       |       |                                                                     | most 2.5Y (7/2) light gray, little 2.5Y (4/2) dark grayish brown, dry well sorted fine to medium sand, trace silt. |                                                                                                                  |                                                                                               |                                                                                                                                    |                                                                                                                    |
| 8                  |                    |                 |                 |             |            |                           |                                                                                                                    |                                                       |       |                                                                     |                                                                                                                    |                                                                                                                  |                                                                                               |                                                                                                                                    |                                                                                                                    |
| 10                 |                    |                 |                 |             |            |                           |                                                                                                                    |                                                       |       |                                                                     |                                                                                                                    |                                                                                                                  |                                                                                               |                                                                                                                                    |                                                                                                                    |
| 12                 |                    | 16/24           | 10-12           | 3-2-3-3     | NA         | C                         |                                                                                                                    |                                                       |       |                                                                     |                                                                                                                    |                                                                                                                  |                                                                                               |                                                                                                                                    |                                                                                                                    |
| 14                 |                    |                 |                 |             |            |                           |                                                                                                                    |                                                       |       |                                                                     |                                                                                                                    |                                                                                                                  |                                                                                               |                                                                                                                                    |                                                                                                                    |
| 16                 |                    | 16/24           | 15-17           | 3-2-4-5     | NA         | C                         |                                                                                                                    |                                                       |       |                                                                     |                                                                                                                    | Most 2.5Y (4/2) dark grayish brown, most 2.5Y (7/2) light gray, dry well sorted fine to medium sand, trace silt. |                                                                                               |                                                                                                                                    |                                                                                                                    |
| 18                 |                    |                 |                 |             |            |                           |                                                                                                                    |                                                       |       |                                                                     |                                                                                                                    |                                                                                                                  |                                                                                               |                                                                                                                                    |                                                                                                                    |
| 20                 |                    |                 |                 |             |            |                           |                                                                                                                    |                                                       |       |                                                                     |                                                                                                                    |                                                                                                                  |                                                                                               |                                                                                                                                    |                                                                                                                    |
| 22                 |                    | 20/24           | 20-22           | 4-4-4-5     | NA         | C                         |                                                                                                                    |                                                       |       |                                                                     |                                                                                                                    |                                                                                                                  | 2.5Y (6/4), light yellowish brown, dry to damp, well sorted fine to medium sands, trace silt. |                                                                                                                                    |                                                                                                                    |
| 24                 |                    |                 |                 |             |            |                           |                                                                                                                    |                                                       |       |                                                                     |                                                                                                                    |                                                                                                                  |                                                                                               |                                                                                                                                    |                                                                                                                    |
| 26                 |                    | 20/24           | 25-27           | 3-3-3-5     | NA         | C                         |                                                                                                                    |                                                       |       |                                                                     |                                                                                                                    |                                                                                                                  |                                                                                               | 10YR, (4/6) dark yellowish brown, wet sat., well sorted fine to medium sand, some med. to coarse sand, trace fine rounded gravels. |                                                                                                                    |
| 28                 |                    |                 |                 |             |            |                           |                                                                                                                    |                                                       |       |                                                                     |                                                                                                                    |                                                                                                                  |                                                                                               |                                                                                                                                    |                                                                                                                    |
| 30                 |                    |                 |                 |             |            |                           |                                                                                                                    |                                                       |       |                                                                     |                                                                                                                    |                                                                                                                  |                                                                                               |                                                                                                                                    |                                                                                                                    |
| 32                 |                    | 14/20           | 30-32           | 9-11-14-21  | NA         | C                         |                                                                                                                    |                                                       |       |                                                                     |                                                                                                                    |                                                                                                                  |                                                                                               |                                                                                                                                    | 10YR (4/6) dark yellowish brown, wet, sat., well graded med. to coarse sands, trace fine sands, trace fine gravel. |

|      |                                                                                       |                          |
|------|---------------------------------------------------------------------------------------|--------------------------|
| Key: |  | Cement                   |
|      |  | Native Backfill Material |
|      |  | Grout                    |
|      |  | Bentonite                |
|      |  | Sand                     |

Remarks: 1) Stratification lines represent approximate boundaries between soil types and the transition may be gradual. Water level readings have been completed at times and under conditions stated. Fluctuations of groundwater may occur due to factors other than those present at the time measurements were made.  
2) Sample is designated as either "C" for composite or "GS" for a discrete grab sample.



Sheet 1 of 1

| Casing    | Sampler |
|-----------|---------|
| Type: PVC | NA      |
| Size: 2"  | NA      |
| Hammer    | NA      |
| Pneumatic | NA      |

|                    |           |
|--------------------|-----------|
| Casing Elevation:  | 244.88    |
| Surface Elevation: | 241.76    |
| Wellhead Type:     | Standpipe |


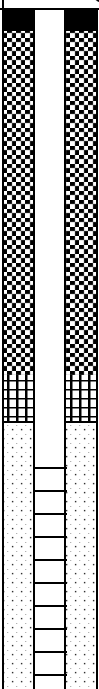





Remarks: 1) Stratification lines represent approximate boundaries between soil types and the transition may be gradual. Water level readings have been completed at times and under conditions stated. Fluctuations of groundwater may occur due to factors other than those present at the time measurements were made.  
2) Sample is designated as either "C" for composite or "GS" for a discrete grab sample.

Sheet   1   of   1  

| Casing    | Sampler |
|-----------|---------|
| Type: PVC | NA      |
| Size: 2"  | NA      |
| Hammer    | NA      |
| Pneumatic | NA      |

|                    |           |
|--------------------|-----------|
| Casing Elevation:  | 241.93    |
| Surface Elevation: | 238.42    |
| Wellhead Type:     | Standpipe |

|          |                                                                                                                                                                                                                                                                                                                                                                                                                       |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Remarks: | <p>1) Stratification lines represent approximate boundaries between soil types and the transition may be gradual. Water level readings have been completed at times and under conditions stated. Fluctuations of groundwater may occur due to factors other than those present at the time measurements were made.</p> <p>2) Sample is designated as either "C" for composite or "GS" for a discrete grab sample.</p> |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                                                                                                                                                                                                                                                                                                                                                                     |                    |                                                                                                                                                                                                              |                |                                                        |                                 |                                                                                                                                                                         |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------------------------------------------|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <b>Sovereign Consulting Inc.</b><br>16 Chestnut Street, Ste 520<br>Foxborough, MA 02035                                                                                                                                                                                                                                            |                    | Boring/Well ID: <b>PZ-12-10</b>                                                                                                                                                                              |                | Sheet <u>  1  </u> of <u>  1  </u>                     |                                 |                                                                                                                                                                         |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Client: U.S.A.C.E.<br>Project: Shepley's Hill Landfill Barrier Wall<br>Project Number: AC001.02B<br>Location: Fort Devens, MA                                                                                                                                                                                                                                                                                       |                    | Drilling Co.: TDS <sup>1</sup><br>Drill Rig: HSA <sup>2</sup> ATV<br>Drill Method: Hollow Stem Auger<br>Foreman: Brett<br>SCI Inspector: Mykel Mendes<br>Start Date: 10/9/2012<br>Completion Date: 10/9/2012 |                | Casing<br>Type: PVC<br>Size: 2"<br>Hammer<br>Pneumatic | Sampler<br>NA<br>NA<br>NA<br>NA |                                                                                                                                                                         |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Depth                                                                                                                                                                                                                                                                                                                                                                                                               | Sample Information |                                                                                                                                                                                                              |                |                                                        |                                 | Casing Elevation: 242.28<br>Surface Elevation: 238.92<br>Wellhead Type: Standpipe                                                                                       |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                     | Sample ID          | Pen./Rec. (in.)                                                                                                                                                                                              | Interval (ft.) | Blows/6"                                               | PID (ppmv)                      | Sample Type                                                                                                                                                             |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Sample Description                                                                                                                                                                                                                                                                                                                                                                                                  |                    |                                                                                                                                                                                                              |                |                                                        |                                 | Stratum Change (ft)                                                                                                                                                     | Notes | Test Boring/ Monitoring Well Construction                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                   |                    |                                                                                                                                                                                                              |                |                                                        |                                 |                                                                                                                                                                         |       |                                                                                                                                                                                                                                                                                                                                        |
| 4                                                                                                                                                                                                                                                                                                                                                                                                                   |                    |                                                                                                                                                                                                              |                |                                                        |                                 |                                                                                                                                                                         |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 6                                                                                                                                                                                                                                                                                                                                                                                                                   | 17/24              | 5-7                                                                                                                                                                                                          | 10-5-4-2       | NA                                                     | C                               | 2.5Y, (6/3) light yellowish brown, dry, bottom 10" is loose, well sorted fine to medium sands, upper portion of spoon (~7") loosely packed fine silts, trace pulverized |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 8                                                                                                                                                                                                                                                                                                                                                                                                                   |                    |                                                                                                                                                                                                              |                |                                                        |                                 |                                                                                                                                                                         |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 10                                                                                                                                                                                                                                                                                                                                                                                                                  |                    |                                                                                                                                                                                                              |                |                                                        |                                 | 2.5Y, (5/3) light olive brown, dry to damp, well sorted loos medium to fine sands, little silts, trace fine rounded gravel.                                             |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 12                                                                                                                                                                                                                                                                                                                                                                                                                  | 13/24              | 10-12                                                                                                                                                                                                        | 6-5-5-8        | NA                                                     | C                               |                                                                                                                                                                         |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 14                                                                                                                                                                                                                                                                                                                                                                                                                  |                    |                                                                                                                                                                                                              |                |                                                        |                                 |                                                                                                                                                                         |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 16                                                                                                                                                                                                                                                                                                                                                                                                                  | 13/24              | 15-17                                                                                                                                                                                                        | 4-5-5-5        | NA                                                     | C                               | 2.5Y, (5/3) light olive brown, dry to damp, upper 5" of spoon loose silts, trace pulverized rock, well sorted loose, fine to med. sands.                                |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 18                                                                                                                                                                                                                                                                                                                                                                                                                  |                    |                                                                                                                                                                                                              |                |                                                        |                                 |                                                                                                                                                                         |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 20                                                                                                                                                                                                                                                                                                                                                                                                                  |                    |                                                                                                                                                                                                              |                |                                                        |                                 |                                                                                                                                                                         |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 22                                                                                                                                                                                                                                                                                                                                                                                                                  | 11/24              | 20-22                                                                                                                                                                                                        | 3-4-6-7        | NA                                                     | C                               | 2.5Y, (4/4) olive brown, wet, medium to coarse sands, trace fine rounded gravels. Bottom 3" of spoon, well sorted med. to fine sands.                                   |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 24                                                                                                                                                                                                                                                                                                                                                                                                                  |                    |                                                                                                                                                                                                              |                |                                                        |                                 |                                                                                                                                                                         |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 26                                                                                                                                                                                                                                                                                                                                                                                                                  | 24/24              | 25-27                                                                                                                                                                                                        | 3-6-7-7        | NA                                                     | C                               | 2.5Y, (4/4) olive brown, wet, saturated, well sorted fine to med. Sands, little silt, trace coarse sands, trace fine gravel.                                            |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 28                                                                                                                                                                                                                                                                                                                                                                                                                  |                    |                                                                                                                                                                                                              |                |                                                        |                                 |                                                                                                                                                                         |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 30                                                                                                                                                                                                                                                                                                                                                                                                                  |                    |                                                                                                                                                                                                              |                |                                                        |                                 |                                                                                                                                                                         |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 32                                                                                                                                                                                                                                                                                                                                                                                                                  | 24/24              | 30-32                                                                                                                                                                                                        | 7-7-8-10       | NA                                                     | C                               | 2.5Y (5/3) light olive brown, wet saturated, well sorted fine to med. sands, some fine silts.                                                                           |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Notes: 1) Technical Drilling Services of Sterling, M/<br>2) Hollow Stem Auger                                                                                                                                                                                                                                                                                                                                       |                    |                                                                                                                                                                                                              |                |                                                        |                                 |                                                                                                                                                                         |       | Key:  Cement<br> Native Backfill Material<br> Grout<br> Bentonite<br> Sand |
| Remarks: 1) Stratification lines represent approximate boundaries between soil types and the transition may be gradual. Water level readings have been completed at times and under conditions stated. Fluctuations of groundwater may occur due to factors other than those present at the time measurements were made.<br>2) Sample is designated as either "C" for composite or "GS" for a discrete grab sample. |                    |                                                                                                                                                                                                              |                |                                                        |                                 |                                                                                                                                                                         |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |



## **APPENDIX D**

### **Waste Disposal Documentation**

Casella Waste Services Southbridge LF  
A Division of Casella Waste Systems Inc.  
165 Barefoot Rd Southbridge MA 01550  
V: (508)765-9976 F: (508)765-2752

TICKET: 173392  
DATE: 11/20/2012  
TIME: 10:48 - 11:15

CUSTOMER: LF00256 / EQ NORTHEAST INC  
HAULCUST: WO: 0 APPROVAL #:

P.O.:  
GROSS: 87320 LBS  
TARE: 36980 LBS  
NET: 50340 LBS

ORIGIN: NA / NON APPLICABLE

TRUCK: G 03-4

TRAILER:

GENERATOR: NA / NON APPLICABLE PROFILE #: NA

HAULER: GOULET / GOULET

ROUTE: NA / NON APPLICABLE

COMMENT:

CELL/TANK: 7

MATERIAL

QUANTITY

UNIT

MS / IB MSW

25.1700

ST

To the best of my knowledge, the material delivered to this site is not hazardous, asbestos containing, or unacceptable waste. I certify, under the penalty of perjury that the information provided is true and correct to the best of my knowledge and belief.

I Certify under penalty of perjury that I am familiar with wastes

authorized at this facility and that to the best of my knowledge all

waste contained in this load is authorized for disposal at this facility.

IN: JMR

B: PCSCALE1-STH OUT: JMR

Driver: B: PCSCALE1-STH





Massachusetts Department of Environmental Protection  
Bureau of Waste Prevention

## Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Tracking Number \_\_\_\_\_

### A. Location Information

**Important:**  
When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



1. Provide the following information on the location where the waste was generated:

Release name (optional) Shepley's Hill Landfill - Remier Wall Construction

Street Cook Street

City/Town Devens

Location aid

State MA

Zip code 01434

2. Date/Period of generation:

From 8-20-12

To 9-14-12

3. U.S. EPA ID number:

MA7210025154

4. 21E release:

☐ Yes

☒ No

5. List additional tracking documents associated with this document:

### B. Generator Information

1. Provide the following generator information:

Name of organization Department of the Army - Former Ft. Devens Installation

Contact name Robert Simone

Title BRAC Environmental Coordinator

Street address

30 Quebec Street

City/Town

Devens

State

MA

Zip code 01434

Telephone number(including extension)

(978) 796-2205

### C. Owner and/or Operator Information

1. If the owner and/or operator is different from the generator as indicated in Section B, provide the following information:

Check applicable: ☐ owner ☐ operator

Name of organization

Contact name

Title

Street address

City/Town

State

Zip code

Telephone number

Ext.

**Important:**  
This form is not to be used for the shipment of remediation wastes subject to management under section 310 CMR 40.0035 of the Massachusetts Contingency Plan nor is it to be used in lieu of a hazardous waste manifest for hazardous waste or recyclable materials subject to the Massachusetts Hazardous Waste Regulations 310 CMR 30.000.



Massachusetts Department of Environmental Protection  
Bureau of Waste Prevention

## Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Tracking Number \_\_\_\_\_

### D. Transporter/Common Carrier Information

1. Provide the following information:

Goulet Trucking Inc.  
Transporter/Common carrier name

N/A  
Hazardous waste license number (if applicable)

MA  
Licensing state (if applicable)

Paul Jordan  
Contact person

T+D Coordinator  
Title

P.O. Box 259  
Street

South Deerfield  
City/Town

MA  
State

01373  
Zip code

(413) 665-1323  
Telephone number

—  
Ext.

### E. Receiving Facility Information

1. Provide the following information on the receiving facility:

Casella Waste Services / Southbridge Recycling + Disposal Park Inc.  
Operator/Facility name

Scott Simpson  
Contact person

165 Barefoot Road  
Street

Southbridge  
City/Town

MA  
State

01550  
Zip code

(603) 235-3597  
Telephone number

—  
Ext.

2. Type of facility:

- ☐ asphalt batch/cold mix  
☐ asphalt batch/hot mix  
☒ landfill/disposal  
☐ landfill/ daily cover  
☐ thermal processing  
☒ landfill/structural fill  
☐ other(specify): \_\_\_\_\_

3. Permit number: X239694



Massachusetts Department of Environmental Protection  
Bureau of Waste Prevention

## Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Tracking Number \_\_\_\_\_

### F. Description of Material

Check all that apply:

1. a. ☐ soil ☐ dredge material ☐ fill

b. Description: \_\_\_\_\_

c. Classification: ☐ MIT ☐ USDA ☐ USAEC ☐ ASEE

2. ☒ Other(describe): Municipal Solid Waste

3. Type of contamination:

- a. ☐ gasoline ☐ diesel fuel ☐ #2 oil ☐ #4 oil  
☐ #6 oil ☐ waste oil ☐ kerosene ☐ jet fuel

b. ☒ Debris:

☒ demolition ☐ vegetative ☐ inorganic

c. ☐ Other(describe): \_\_\_\_\_

4. Constituents of concern (check all that apply):

- |                                        |                                                 |
|----------------------------------------|-------------------------------------------------|
| <input checked="" type="checkbox"/> As | <input type="checkbox"/> HVOCs                  |
| <input type="checkbox"/> Cd            | <input type="checkbox"/> PATH                   |
| <input checked="" type="checkbox"/> Cr | <input type="checkbox"/> VOCs                   |
| <input checked="" type="checkbox"/> Pb | <input type="checkbox"/> PAHs                   |
| <input type="checkbox"/> Hg            | <input type="checkbox"/> BNAs                   |
| <input type="checkbox"/> Na            | <input type="checkbox"/> TPH                    |
| <input type="checkbox"/> PCBs          | <input type="checkbox"/> Other(describe): _____ |

5. Analyses performed (check all that apply):

- |                                          |                                                 |
|------------------------------------------|-------------------------------------------------|
| <input checked="" type="checkbox"/> As   | <input type="checkbox"/> PATH                   |
| <input checked="" type="checkbox"/> Cd   | <input checked="" type="checkbox"/> VOCs        |
| <input checked="" type="checkbox"/> Cr   | <input checked="" type="checkbox"/> PAHs        |
| <input checked="" type="checkbox"/> Pb   | <input type="checkbox"/> BNAs                   |
| <input checked="" type="checkbox"/> Hg   | <input checked="" type="checkbox"/> TPH         |
| <input type="checkbox"/> Na              | <input type="checkbox"/> TCLP (inorganic)       |
| <input checked="" type="checkbox"/> PCBs | <input type="checkbox"/> TCLP (organic)         |
| <input type="checkbox"/> HVOCs           | <input type="checkbox"/> Other(describe): _____ |

6. Screening performed:

N/A  
Type  
N/A  
Instrument used  
N/A  
Constituents





Massachusetts Department of Environmental Protection  
Bureau of Waste Prevention

## Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Tracking Number \_\_\_\_\_

### F. Description of Material (cont.)

7. Estimated volume of materials:

25 Cubic yards      \_\_\_\_\_ Tons      \_\_\_\_\_ Other(specify units)

8. Contaminant source (check one):

- ☐ transportation accident  
☐ lost  
☒ other(describe): Former Landfill

9. Indicate which waste characterization support documentation is attached:

- ☒ site history information  
☐ sampling and analytical methods/procedure  
☒ laboratory data  
☐ field screening data

If supporting documentation is not appended, provide an attachment stating the date and in connection with what document such information was previously submitted to the facility.

### G. Qualified Environmental Professional Opinion

"I have personally examined and am familiar with the information contained on and submitted with this form. Based on this information, it is my opinion that the testing and assessment actions undertaken were adequate to characterize the waste, and that the facility or location can accept wastes with the characteristics described in this submittal. I am aware that significant penalties including, but not limited to, possible fines and imprisonment may result if I willfully submit information which I know to be false, inaccurate, or materially incomplete."

Sovereign Consulting Inc.  
Name of organization

\_\_\_\_\_  
Name of professional

Program Manager  
Title

508.339.3200  
Telephone number

\_\_\_\_\_  
Ext.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
License number

\_\_\_\_\_  
Seal:





Massachusetts Department of Environmental Protection  
Bureau of Waste Prevention

## Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge  
materials not subject to management under section 310 CMR 40.0035  
nor manifesting under 310 CMR 30.000

Tracking Number \_\_\_\_\_

### H. Certification of Generator

"I certify under penalties of law that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this certification, and that, based on my inquiry of those individuals immediately responsible for obtaining the information contained herein is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate, or incomplete information."

*[Signature]* on behalf of the US Army  
Signature  
11/20/12  
Date  
Jonathan Chaffee of Swearing Consulting  
Name(print)  
on behalf of the US Army

### I. Acknowledgment of Receipt by Receiving Facility

Receiving facility Southbridge Landfill  
Representative (print) Joseph Robidoux  
Title Scale operator  
Signature [Signature] Date 11/20/12



Massachusetts Department of Environmental Protection  
Bureau of Waste Prevention

## Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge  
materials not subject to management under section 310 CMR 40.0035  
nor manifesting under 310 CMR 30.000

Tracking Number \_\_\_\_\_

### J. Load Information

**Note:**  
Make additional  
copies of this page  
as necessary.

Load#: \_\_\_\_\_  
Signature of transporter \_\_\_\_\_  
Date received 11/20/12 Time received 9:00 AM  
Truck/Tractor registration 03-4 / T-54  
Load size (cubic yards/tons) \_\_\_\_\_

Receiving facility Southbridge Landfill  
Date of shipment 11/20/12 Time of shipment \_\_\_\_\_  
Trailer registration T-54

Load#: \_\_\_\_\_  
Signature of transporter \_\_\_\_\_  
Date received \_\_\_\_\_ Time received \_\_\_\_\_  
Truck/Tractor registration \_\_\_\_\_  
Load size (cubic yards/tons) \_\_\_\_\_

Receiving facility \_\_\_\_\_  
Date of shipment \_\_\_\_\_ Time of shipment \_\_\_\_\_  
Trailer registration \_\_\_\_\_

Load#: \_\_\_\_\_  
Signature of transporter \_\_\_\_\_  
Date received \_\_\_\_\_ Time received \_\_\_\_\_  
Truck/Tractor registration \_\_\_\_\_  
Load size (cubic yards/tons) \_\_\_\_\_

Receiving facility \_\_\_\_\_  
Date of shipment \_\_\_\_\_ Time of shipment \_\_\_\_\_  
Trailer registration \_\_\_\_\_

### K. Log Sheet Volume Information

Total volume this page (cubic yards/tons) \_\_\_\_\_  
Total carried forward (cubic yards/tons) \_\_\_\_\_  
Total carried forward and this page (cubic yards/tons) \_\_\_\_\_

Page \_\_\_\_\_ of \_\_\_\_\_

12-134  
EQ-Devens

**RURO SAND & STONE CORP.**  
192 PLAIN ST. N. ATTLEBORO, MA 02760-4124  
508-699-2911 1-800-649-2676 (MTX BORO)


ORDER TO: DOWLING CORP.  
JOB: DEVENS  
DELIVER TO:

CUSTOMER NUMBER 37380  
TICKET NUMBER 75090  
TICKET DATE 11/20/2012  
TERMS NET 30 DAYS FROM INVO  
TRUCK: DRIVER:  
PO: LOT:  
WEIGHED BY: TIME OF DAY: 11:17

GROSS WEIGHT LBS. 57660 TARE WEIGHT LBS. 28200 NET WEIGHT LBS. 29460

| PRODUCT                 | U/M | QUANTITY | S-1X |
|-------------------------|-----|----------|------|
| CONCRETE/ASPHALT RUBBLE | TN  | 14.70    |      |

OUR TRUCKS ARE NOT PERMITTED TO GO  
BEYOND CURB LINE, EXCEPT BY OWNER'S OR  
CUSTOMER'S AUTHORIZATIONS, AND I HEREBY  
ACCEPT ALL RESPONSIBILITY FOR RESULTING  
DAMAGES.

RECEIVED BY: 

CUSTOMER COPY





## **APPENDIX E**

### **Results of On-site Quality Control Measures**

**(See CD Included Separately)**

**Shepley's Hill Landfill Barrier Wall**  
**On-Site Quality Control Backfill**  
**Fines Content Testing Results**

| <b>Backfill Batch</b> | <b>Fines Content (%)</b> | <b>Backfill Batch</b> | <b>Fines Content (%)</b> |
|-----------------------|--------------------------|-----------------------|--------------------------|
| 1                     | 54                       | 21                    | 50                       |
| 2                     | 46                       | 22                    | 38                       |
| 3                     | 41                       | 23                    | 43                       |
| 4                     | 37                       | 24                    | 53                       |
| 5                     | 52                       | 25                    | 49                       |
| 6                     | 48                       | 26                    | 45                       |
| 7                     | 42                       | 27                    | 55                       |
| 8                     | 49                       | 28                    | 56                       |
| 9                     | 38                       | 29                    | 51                       |
| 10                    | 41                       | 30                    | 59                       |
| 11                    | 43                       | 31                    | 47                       |
| 12                    | 43                       | 32                    | 51                       |
| 13                    | 42                       | 33                    | 59                       |
| 14                    | 44                       | 34                    | 54                       |
| 15                    | 52                       | 35                    | 54                       |
| 16                    | 41                       | 36                    | 49                       |
| 17                    | 37                       | 37                    | 48                       |
| 18                    | 50                       | 38                    | 48                       |
| 19                    | 44                       | 39                    | 56                       |
| 20                    | 45                       | 40                    | 39                       |

Notes: All on-site Backfill Fines Content testing completed by AMEC Eng.

Shepley's Hill Landfill Barrier wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## BENTONITE SLURRY

### DAILY QC RESULTS

DATE: 8/15/12

SHIFT NO. 1

INSPECTOR: D. Guy

|         |       | <u>VISCOSITY</u>     | <u>TWICE DAILY</u> | SECONDS | REQUIREMENT                                      |
|---------|-------|----------------------|--------------------|---------|--------------------------------------------------|
|         | TIME  |                      | RESULT             |         |                                                  |
| Initial | 9:44  |                      | 44.53              |         | >40                                              |
|         | 14:47 |                      | 42.66              |         |                                                  |
| Trench  |       |                      |                    |         | >40                                              |
|         |       |                      |                    |         |                                                  |
|         |       |                      |                    |         |                                                  |
|         |       |                      |                    |         |                                                  |
|         |       | <u>DENSITY:</u>      | <u>TWICE DAILY</u> | PCF     | 64 TO 90<br>(AT LEAST 20 PCF<br>LIGHTER THAN BF) |
|         | TIME: |                      | RESULT:            |         |                                                  |
| Initial | 9:46  |                      | 64.2               |         | >64                                              |
|         | 14:53 |                      | 64.2               |         |                                                  |
| Trench  |       |                      |                    |         |                                                  |
|         |       |                      |                    |         |                                                  |
|         |       |                      |                    |         |                                                  |
|         |       |                      |                    |         |                                                  |
|         |       | <u>FILTRATE LOSS</u> | <u>TWICE DAILY</u> | CC      | <25 IN 30 MINS.<br><br><25 IN 30 MINS.           |
|         | TIME: |                      | RESULT:            |         |                                                  |
| Initial | 9:49  |                      | 17.8               |         |                                                  |
|         | 15:00 |                      | 18.8               |         |                                                  |
| Trench  |       |                      |                    |         |                                                  |
|         |       |                      |                    |         |                                                  |
|         |       |                      |                    |         |                                                  |
|         |       |                      |                    |         |                                                  |
|         |       | <u>pH</u>            | <u>TWICE DAILY</u> |         | 7-10                                             |
|         | TIME: |                      | RESULT:            |         |                                                  |
| Initial | 9:53  |                      | 7.5                |         |                                                  |
|         | 15:02 |                      | 7.5                |         |                                                  |

COMMENTS / SPECIAL EVENTS:

SIGNED: \_\_\_\_\_ D. Guy  
CONTRACTOR'S QC



### BACKFILL SLOPE - END OF SHIFT

## DAILY QC RESULTS

**INSPECTOR: D. Guy**

**COMMENTS:**

**SIGNED:** D.Guy  
**CONTRACTOR'S QC**

Shepley's Hill Landfill Barrier wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## BENTONITE SLURRY

### DAILY QC RESULTS

DATE: 8/16/12

SHIFT NO. 1

INSPECTOR: D. Guy

|         |       | <u>VISCOSITY</u>     | <u>TWICE DAILY</u> |         |                  |
|---------|-------|----------------------|--------------------|---------|------------------|
|         | TIME  |                      | RESULT             | SECONDS | REQUIREMENT      |
| Initial | 8:19  |                      | 43.53              |         | >40              |
|         | 12:38 |                      | 41.32              |         |                  |
| Trench  | 9:30  |                      | 40.81              |         | >40              |
|         | 2:05  |                      | 42.1               |         |                  |
|         | 16:49 |                      | 41.8               |         |                  |
|         |       | <u>DENSITY:</u>      | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            | PCF     |                  |
| Initial | 8:24  |                      | 64.8               |         | >64              |
|         | 12:41 |                      | 64.5               |         |                  |
| Trench  | 9:33  |                      | 83.5               |         | 64 TO 90         |
|         | 2:07  |                      | 79.8               |         | (AT LEAST 20 PCF |
|         | 16:53 |                      | 83.0               |         | LIGHTER THAN BF) |
|         |       | <u>FILTRATE LOSS</u> | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            | CC      |                  |
| Initial | 9:05  |                      | 16.2               |         | <25 IN 30 MINS.  |
|         | 13:12 |                      | 16.6               |         |                  |
| Trench  | 10:08 |                      | 20.6               |         | <25 IN 30 MINS.  |
|         | 2:38  |                      | 22.4               |         |                  |
|         | 17:20 |                      | 21.1               |         |                  |
|         |       | <u>pH</u>            | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            |         |                  |
| Initial | 8:26  |                      | 7.5                |         | 7-10             |
|         | 12:43 |                      | 7.5                |         |                  |

COMMENTS / SPECIAL EVENTS:

SIGNED: \_\_\_\_\_ D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - START OF SHIFT**

**DAILY QC RESULTS**

DATE: 8/17                      SHIFT NO. 1                      INSPECTOR: D. Guy

| STATION<br>NO. | DEPTH |
|----------------|-------|
| 0-25           | 0     |
| 0-20           | 6.4   |
| 0-10           | 23    |
| 0+00           | 23.8  |
| 0+10           | 22    |
| 0+20           | 23.7  |
| 0+30           | 24.6  |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |

COMMENTS:

SIGNED: D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - END OF SHIFT**

**DAILY QC RESULTS**

**DATE:** 8/17/12

**SHIFT NO.** I

**INSPECTOR:** D. Guy

| STATION<br>NO. | DEPTH |
|----------------|-------|
| 0+ -25         | 0.0   |
| 0+ -20         | 3.0   |
| 0+ -10         | 13.8  |
| 0+00           | 13.8  |
| 0+10           | 18.0  |
| 0+20           | 19.7  |
| 0+30           | 20.6  |
| 0+40           | 24.2  |
| 0+50           | 27.0  |
| 0+60           | 29.0  |
| 0+70           | 29.0  |
| 0+80           | 23.7  |
| 0+90           | 22.3  |
| 1+00           | 7.8   |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |

**COMMENTS:**

**SIGNED:** D.Guy  
CONTRACTOR'S QC



# MORETRENCH

100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## SOIL-BENTONITE BACKFILL

### DAILY QC RESULTS

DATE: 8/17/12

SHIFT NO. I

INSPECTOR: D. Guy

#### SLUMP

1 per Batch

#### REQUIREMENT

STATION

TIME

RESULT

|  |
|--|
|  |
|  |
|  |

|      |
|------|
| 8:12 |
|      |
|      |

|      |
|------|
| 3.75 |
|      |
|      |

INCHES

3" TO 6"  
(Prior to Backfilling)

#### DENSITY

PRIOR TO BACKFILLING - TWICE DAILY

STATION

TIME

RESULT

|  |
|--|
|  |
|  |

|       |
|-------|
| 8:45  |
| 13:34 |

|       |
|-------|
| 121   |
| 119.5 |

PCF

110-125 pcf  
20 PCF > Slurry Unit  
Weight

#### PERMEABILITY

(Laboratory) EVERY 300 CY OF BACKFILL

STATION

SAMPLE NO.

|  |
|--|
|  |
|  |

|  |
|--|
|  |
|  |

<  $1 \times 10^{-7}$  CM/SEC

#### GRADATION

(Laboratory) EVERY 300 CY OF BACKFILL

STATION

SAMPLE NO.

|  |
|--|
|  |
|  |

|  |
|--|
|  |
|  |

30% - 40% < #200

#### FINES

(Laboratory) EVERY 100 CY OF BACKFILL

STATION

SAMPLE NO.

|  |
|--|
|  |
|--|

|  |
|--|
|  |
|--|

30% - 40% < #200

Shepley's Hill Landfill Barrier wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## BENTONITE SLURRY

### DAILY QC RESULTS

DATE: 8/16/12

SHIFT NO. 1

INSPECTOR: D. Guy

|         |       | <u>VISCOSITY</u>     | <u>TWICE DAILY</u> |         |                  |
|---------|-------|----------------------|--------------------|---------|------------------|
|         | TIME  |                      | RESULT             | SECONDS | REQUIREMENT      |
| Initial | 8:34  |                      | 44.1               |         | >40              |
|         | 12:39 |                      | 42.31              |         |                  |
| Trench  | 9:34  |                      | 44.6               |         | >40              |
|         | 2:05  |                      | 50.75              |         |                  |
|         | 16:50 |                      | 43.5               |         |                  |
|         |       | <u>DENSITY:</u>      | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            | PCF     |                  |
| Initial | 8:37  |                      | 64.2               |         | >64              |
|         | 12:41 |                      | 64.5               |         |                  |
| Trench  | 9:37  |                      | 83.5               |         | 64 TO 90         |
|         | 2:09  |                      | 92.5               |         | (AT LEAST 20 PCF |
|         | 16:53 |                      | 83.5               |         | LIGHTER THAN BF) |
|         |       | <u>FILTRATE LOSS</u> | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            | CC      |                  |
| Initial | 9:09  |                      | 17.3               |         | <25 IN 30 MINS.  |
|         | 13:12 |                      | 16.6               |         |                  |
| Trench  | 10:08 |                      | 19.2               |         | <25 IN 30 MINS.  |
|         | 2:41  |                      | 25.4               |         |                  |
|         | 17:21 |                      | 22.1               |         |                  |
|         |       | <u>pH</u>            | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            |         |                  |
| Initial | 8:36  |                      | 7                  |         | 7-10             |
|         | 12:43 |                      | 7                  |         |                  |

COMMENTS / SPECIAL EVENTS:

SIGNED: \_\_\_\_\_ D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - START OF SHIFT**

**DAILY QC RESULTS**

**DATE:** 8/20/12

**SHIFT NO.** 1

**INSPECTOR:** D. Guy

| STATION<br>NO. | DEPTH |
|----------------|-------|
| 0-25           | 0.0   |
| 0-20           | 3.2   |
| 0-10           | 14.2  |
| 0+00           | 14.5  |
| 0+10           | 17.8  |
| 0+20           | 19.5  |
| 0+30           | 21.7  |
| 0+40           | 24.0  |
| 0+50           | 27.2  |
| 0+60           | 29.0  |
| 0+70           | 30.2  |
| 0+80           | 22.6  |
| 0+90           | 15.8  |
| 1+00           | 6.6   |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |

**COMMENTS:**

**SIGNED:** D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## BACKFILL SLOPE - END OF SHIFT

### DAILY QC RESULTS

DATE: 8/20/12

SHIFT NO. 1

INSPECTOR: D. Guy

| STATION<br>NO. | DEPTH |
|----------------|-------|
| 0+ -25         | 0.0   |
| 0+ -20         | 0.0   |
| 0+ -10         | 0.0   |
| 0+00           | 0.0   |
| 0+10           | 0.0   |
| 0+20           | 0.0   |
| 0+30           | 0.0   |
| 0+40           | 6.7   |
| 0+50           | 9.5   |
| 0+60           | 11.0  |
| 0+70           | 13.4  |
| 0+80           | 15.3  |
| 0+90           | 17.0  |
| 1+00           | 18.0  |
| 1+10           | 21.6  |
| 1+20           | 22.5  |
| 1+30           | 22.7  |
| 1+40           | 24.1  |
| 1+50           | 24.9  |
| 1+60           | 25.2  |
| 1+70           | 27.0  |
| 1+80           | 26.2  |
| 1+90           | 8.0   |
|                |       |

COMMENTS:

SIGNED: D.Guy  
CONTRACTOR'S QC

Shepley's Hill Barrier Wall  
 Soil-Bentonite Wall  
 Ft. Devens, MA

**SOIL-BENTONITE BACKFILL**

**DAILY QC RESULTS**

DATE: 8/20/12
 SHIFT NO. I
 INSPECTOR: D. Guy

SLUMP
 I per Batch
 REQUIREMENT

| STATION | TIME  | RESULT |        |
|---------|-------|--------|--------|
|         | 8:32  | 4      | INCHES |
|         | 11:45 | 3      |        |
|         |       |        |        |

3" TO 6"  
 (Prior to Backfilling)

DENSITY
 PRIOR TO BACKFILLING - TWICE DAILY

| STATION | TIME  | RESULT |     |
|---------|-------|--------|-----|
|         | 8:45  | 122.6  | PCF |
|         | 12:45 | 121.5  |     |

110-125 pcf  
 20 PCF>Slurry Unit Weight

PERMEABILITY
 (Laboratory) EVERY 300 CY OF BACKFILL

| STATION | SAMPLE NO. |                            |
|---------|------------|----------------------------|
|         |            | <1X10 <sup>-7</sup> CM/SEC |
|         |            |                            |

GRADATION
 (Laboratory) EVERY 300 CY OF BACKFILL

| STATION | SAMPLE NO. |                 |
|---------|------------|-----------------|
|         |            | 30% - 40%%<#200 |
|         |            |                 |

FINES
 (Laboratory) EVERY 100 CY OF BACKFILL

| STATION | SAMPLE NO. |                 |
|---------|------------|-----------------|
|         |            | 30% - 40%%<#200 |

Shepley's Hill Landfill Barrier wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## BENTONITE SLURRY

### DAILY QC RESULTS

DATE: 8/20/12

SHIFT NO. 1

INSPECTOR: D. Guy

|         |       | <u>VISCOSITY</u>     | <u>TWICE DAILY</u> |         |                  |
|---------|-------|----------------------|--------------------|---------|------------------|
|         | TIME  |                      | RESULT             | SECONDS | REQUIREMENT      |
| Initial | 12:50 |                      | 38.5               |         | >40              |
|         | 2:54  |                      | 39.9               |         |                  |
| Trench  | 8:49  | 0+70                 | 37.5               |         | >40              |
|         | 10:15 | 1+20                 | 56.25              |         |                  |
|         | 15:30 | 1+30                 | 48.2               |         |                  |
|         |       | <u>DENSITY:</u>      | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            | PCF     |                  |
| Initial | 12:53 |                      | 64.2               |         | >63              |
|         | 2:56  |                      | 64.2               |         |                  |
| Trench  | 8:51  |                      | 76.5               |         | <b>64 TO 90</b>  |
|         | 10:18 |                      | 94                 |         | (AT LEAST 20 PCF |
|         | 15:34 |                      | 79.8               |         | LIGHTER THAN BF) |
|         |       | <u>FILTRATE LOSS</u> | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            | CC      |                  |
| Initial | 13:24 |                      | 17.8               |         | <25 IN 30 MINS.  |
|         | 15:28 |                      | 19                 |         |                  |
| Trench  | 9:21  |                      | 22.8               |         | <25 IN 30 MINS.  |
|         | 10:48 |                      | 26.6               |         |                  |
|         | 16:05 |                      | 18.8               |         |                  |
|         |       | <u>pH</u>            | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            |         |                  |
| Initial | 12:56 |                      | 7                  |         | 7-10             |
|         | 3:00  |                      | 7                  |         |                  |

COMMENTS / SPECIAL EVENTS:

SIGNED: \_\_\_\_\_ D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - START OF SHIFT**

**DAILY QC RESULTS**

**DATE:** 8/21/12

**SHIFT NO.** 1

**INSPECTOR:** D. Guy

| STATION<br>NO. | DEPTH |
|----------------|-------|
| 0+30           | 0.0   |
| 0+40           | 6.6   |
| 0+50           | 9.5   |
| 0+60           | 11.1  |
| 0+70           | 13.4  |
| 0+80           | 15.1  |
| 0+90           | 17.0  |
| 1+00           | 18.0  |
| 1+10           | 21.4  |
| 1+20           | 22.6  |
| 1+30           | 22.9  |
| 1+40           | 24.0  |
| 1+50           | 24.8  |
| 1+60           | 25.0  |
| 1+70           | 26.9  |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |

**COMMENTS:**

**SIGNED:** D. Guy  
CONTRACTOR'S QC





100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - END OF SHIFT**

**DAILY QC RESULTS**

**DATE:** 8/21/12

**SHIFT NO.** 1

**INSPECTOR:** D. Guy

| STATION<br>NO. | DEPTH |
|----------------|-------|
| 1+00           | 0.0   |
| 1+10           | 4.3   |
| 1+20           | 12.6  |
| 1+30           | 15.8  |
| 1+40           | 17.8  |
| 1+50           | 19.5  |
| 1+60           | 21.3  |
| 1+70           | 24.4  |
| 1+80           | 27.0  |
| 1+90           | 26.4  |
| 2+00           | 28.6  |
| 2+10           | 29.0  |
| 2+20           | 30.9  |
| 2+30           | 30.1  |
| 2+40           | 30.0  |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |

**COMMENTS:**

**SIGNED:** D.Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## SOIL-BENTONITE BACKFILL

### DAILY QC RESULTS

DATE: 8/21/12

SHIFT NO. 1

INSPECTOR: D. Guy

#### SLUMP

1 per Batch

#### REQUIREMENT

STATION

TIME

RESULT

|  |
|--|
|  |
|  |
|  |

|       |
|-------|
| 8:45  |
| 11:45 |
| 14:39 |

|   |
|---|
| 3 |
| 4 |
| 3 |

INCHES

3" TO 6"  
(Prior to Backfilling)

#### DENSITY

PRIOR TO BACKFILLING - TWICE DAILY

STATION

TIME

RESULT

|  |
|--|
|  |
|  |

|       |
|-------|
| 8:53  |
| 12:00 |
| 14:51 |

|       |
|-------|
| 121.5 |
| 124   |
| 121.5 |

PCF

110-125 pcf  
20 PCF > Slurry Unit  
Weight

#### PERMEABILITY

(Laboratory) EVERY 300 CY OF BACKFILL

STATION

SAMPLE NO.

|  |
|--|
|  |
|  |

|  |
|--|
|  |
|  |

<  $1 \times 10^{-7}$  CM/SEC

#### GRADATION

(Laboratory) EVERY 300 CY OF BACKFILL

STATION

SAMPLE NO.

|  |
|--|
|  |
|  |

|  |
|--|
|  |
|  |

30% - 40% < #200

#### FINES

(Laboratory) EVERY 100 CY OF BACKFILL

STATION

SAMPLE NO.

|  |
|--|
|  |
|--|

|  |
|--|
|  |
|--|

30% - 40% < #200

Shepley's Hill Landfill Barrier wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## BENTONITE SLURRY

### DAILY QC RESULTS

DATE: 8/21/12

SHIFT NO. 1

INSPECTOR: D. Guy

|         |       | <u>VISCOSITY</u>     | <u>TWICE DAILY</u> |         |                  |
|---------|-------|----------------------|--------------------|---------|------------------|
|         | TIME  |                      | RESULT             | SECONDS | REQUIREMENT      |
| Initial | 8:45  |                      | 40.1               |         | >40              |
|         | 14:54 |                      | 40                 |         |                  |
| Trench  | 8:49  | I + 00               | 49.6               |         | >40              |
|         | 11:06 | I + 20               | 49.3               |         |                  |
|         | 15:40 | I + 50               | 49.5               |         |                  |
|         |       | <u>DENSITY:</u>      | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            | PCF     |                  |
| Initial | 8:53  |                      | 64.2               |         | >63              |
|         | 14:56 |                      | 64.4               |         |                  |
| Trench  | 8:53  |                      | 88.4               |         | <b>64 TO 90</b>  |
|         | 11:08 |                      | 87.5               |         | (AT LEAST 20 PCF |
|         | 15:44 |                      | 88.0               |         | LIGHTER THAN BF) |
|         |       | <u>FILTRATE LOSS</u> | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            | CC      |                  |
| Initial | 9:24  |                      | 18.8               |         | <25 IN 30 MINS.  |
|         | 15:28 |                      | 19.1               |         |                  |
| Trench  | 9:31  |                      | 20.5               |         | <25 IN 30 MINS.  |
|         | 11:40 |                      | 21.4               |         |                  |
|         | 16:07 |                      | 21.2               |         |                  |
|         |       | <u>pH</u>            | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            |         |                  |
| Initial | 9:00  |                      | 7.5                |         | 7-10             |
|         | 15:00 |                      | 7                  |         |                  |

COMMENTS / SPECIAL EVENTS:

SIGNED: \_\_\_\_\_ D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - START OF SHIFT**

**DAILY QC RESULTS**

**DATE:** 8/22/12

**SHIFT NO.** 1

**INSPECTOR:** D. Guy

| STATION<br>NO. | DEPTH |
|----------------|-------|
| 1+00           | 0.0   |
| 1+10           | 4.4   |
| 1+20           | 12.6  |
| 1+30           | 16.4  |
| 1+40           | 18.2  |
| 1+50           | 19.7  |
| 1+60           | 22.0  |
| 1+70           | 24.8  |
| 1+80           | 26.8  |
| 1+90           | 26.3  |
| 2+00           | 28.7  |
| 2+10           | 29.0  |
| 2+20           | 30.7  |
| 2+30           | 30.0  |
| 2+40           | 30.0  |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |

**COMMENTS:**

**SIGNED:** D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - END OF SHIFT**

**DAILY QC RESULTS**

**DATE:** 8/22/12

**SHIFT NO.** 1

**INSPECTOR:** D. Guy

| STATION<br>NO. | DEPTH |
|----------------|-------|
| 1+70           | 0.0   |
| 1+80           | 11.5  |
| 1+90           | 14.8  |
| 2+00           | 15.8  |
| 2+10           | 17.3  |
| 2+20           | 22.3  |
| 2+30           | 23.7  |
| 2+40           | 26.0  |
| 2+50           | 26.6  |
| 2+60           | 28.2  |
| 2+70           | 32.5  |
| 2+80           | 36.4  |
| 2+90           | 36.7  |
| 3+00           | 36.2  |
| 3+10           | 36.0  |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |

**COMMENTS:**

**SIGNED:** D.Guy  
CONTRACTOR'S QC

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**SOIL-BENTONITE BACKFILL**

**DAILY QC RESULTS**

DATE: 8/22/12

SHIFT NO. 1

INSPECTOR: D. Guy

SLUMP

1 per Batch

REQUIREMENT

STATION

TIME

RESULT

8:30

11:15

15:30

3

3.5

4.5

INCHES

3" TO 6"

(Prior to Backfilling)

DENSITY

PRIOR TO BACKFILLING - TWICE DAILY

STATION

TIME

RESULT

8:40

11:50

15:39

120.5

121

123.5

PCF

110-125 pcf

20 PCF>Slurry Unit Weight

PERMEABILITY

(Laboratory) EVERY 300 CY OF BACKFILL

STATION

SAMPLE NO.

<1X10<sup>-7</sup> CM/SEC

GRADATION

(Laboratory) EVERY 300 CY OF BACKFILL

STATION

SAMPLE NO.

30% - 40%%<#200

FINES

(Laboratory) EVERY 100 CY OF BACKFILL

STATION

SAMPLE NO.

30% - 40%%<#200

Shepley's Hill Landfill Barrier wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## BENTONITE SLURRY

### DAILY QC RESULTS

DATE: 8/22/12

SHIFT NO. 1

INSPECTOR: D. Guy

|         |       | <u>VISCOSITY</u>     | <u>TWICE DAILY</u> |         |                  |
|---------|-------|----------------------|--------------------|---------|------------------|
|         | TIME  |                      | RESULT             | SECONDS | REQUIREMENT      |
| Initial | 11:00 |                      | 40.2               |         | >40              |
|         | 15:13 |                      | 40.1               |         |                  |
| Trench  | 9:20  | 2+40                 | 45.4               |         | >40              |
|         | 13:30 | 2+00                 | 54.4               |         |                  |
|         | 14:34 | 1+60                 | 49.3               |         |                  |
|         |       | <u>DENSITY:</u>      | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            | PCF     |                  |
| Initial | 11:05 |                      | 64.4               |         | >63              |
|         | 15:16 |                      | 64.4               |         |                  |
| Trench  | 9:22  |                      | 82.5               |         | 64 TO 90         |
|         | 13:33 |                      | 92.5               |         | (AT LEAST 20 PCF |
|         | 14:36 |                      | 86.3               |         | LIGHTER THAN BF) |
|         |       | <u>FILTRATE LOSS</u> | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            | CC      |                  |
| Initial | 11:35 |                      | 19                 |         | <25 IN 30 MINS.  |
|         | 15:46 |                      | 19.1               |         |                  |
| Trench  | 9:54  |                      | 20                 |         | <25 IN 30 MINS.  |
|         | 14:04 |                      | 26                 |         |                  |
|         | 15:08 |                      | 21.4               |         |                  |
|         |       | <u>pH</u>            | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            |         |                  |
| Initial | 11:08 |                      | 7.5                |         | 7-10             |
|         | 15:18 |                      | 7                  |         |                  |

COMMENTS / SPECIAL EVENTS:

SIGNED: \_\_\_\_\_ D. Guy  
CONTRACTOR'S QC





100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - START OF SHIFT**

**DAILY QC RESULTS**

**DATE:** 8/23/12

**SHIFT NO.** 1

**INSPECTOR:** D. Guy

| STATION<br>NO. | DEPTH |
|----------------|-------|
| 1+70           | 0.0   |
| 1+80           | 12.5  |
| 1+90           | 15.6  |
| 2+00           | 16.5  |
| 2+10           | 17.5  |
| 2+20           | 22.4  |
| 2+30           | 24.1  |
| 2+40           | 26.9  |
| 2+50           | 26.7  |
| 2+60           | 28.4  |
| 2+70           | 32.5  |
| 2+80           | 36.4  |
| 2+90           | 36.8  |
| 3+00           | 36.4  |
| 3+10           | 36.3  |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |

**COMMENTS:**

**SIGNED:** D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - END OF SHIFT**

**DAILY QC RESULTS**

DATE: 8/23/12                      SHIFT NO. 1                      INSPECTOR: D. Guy

| STATION<br>NO. | DEPTH |
|----------------|-------|
| 2+30           | 0.0   |
| 2+40           | 4.5   |
| 2+50           | 11.7  |
| 2+60           | 17.7  |
| 2+70           | 23.2  |
| 2+80           | 25.6  |
| 2+90           | 26.6  |
| 3+00           | 29.4  |
| 3+10           | 30.5  |
| 3+20           | 32.7  |
| 3+30           | 35.9  |
| 3+40           | 39.0  |
| 3+50           | 38.8  |
| 3+60           | 16.0  |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |

COMMENTS:

SIGNED: D.Guy  
CONTRACTOR'S QC

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**SOIL-BENTONITE BACKFILL**

**DAILY QC RESULTS**

DATE: 8/23/12

SHIFT NO. I

INSPECTOR: D. Guy

| SLUMP   | I per Batch                        | REQUIREMENT |
|---------|------------------------------------|-------------|
| STATION | TIME                               | RESULT      |
|         | 9:02                               | 3 INCHES    |
|         | 12:45                              | 3           |
|         | 15:45                              | 3           |
| DENSITY | PRIOR TO BACKFILLING - TWICE DAILY |             |

3" TO 6"  
(Prior to Backfilling)

|              |                                       |         |
|--------------|---------------------------------------|---------|
| STATION      | TIME                                  | RESULT  |
|              | 9:12                                  | 121 PCF |
|              | 13:00                                 | 121.5   |
|              | 16:00                                 | 122     |
| PERMEABILITY | (Laboratory) EVERY 300 CY OF BACKFILL |         |

110-125 pcf  
20 PCF>Slurry Unit Weight

|         |            |                            |
|---------|------------|----------------------------|
| STATION | SAMPLE NO. |                            |
|         |            | <1X10 <sup>-7</sup> CM/SEC |

|           |                                       |
|-----------|---------------------------------------|
| GRADATION | (Laboratory) EVERY 300 CY OF BACKFILL |
|-----------|---------------------------------------|

|         |            |                 |
|---------|------------|-----------------|
| STATION | SAMPLE NO. |                 |
|         |            | 30% - 40%%<#200 |

|       |                                       |
|-------|---------------------------------------|
| FINES | (Laboratory) EVERY 100 CY OF BACKFILL |
|-------|---------------------------------------|

|         |            |                 |
|---------|------------|-----------------|
| STATION | SAMPLE NO. |                 |
|         |            | 30% - 40%%<#200 |

Shepley's Hill Landfill Barrier wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## BENTONITE SLURRY

### DAILY QC RESULTS

DATE: 8/23/12

SHIFT NO. 1

INSPECTOR: D. Guy

|         |       | <u>VISCOSITY</u>     | <u>TWICE DAILY</u> |         |                  |
|---------|-------|----------------------|--------------------|---------|------------------|
|         | TIME  |                      | RESULT             | SECONDS | REQUIREMENT      |
| Initial | 10:04 |                      | 41.2               |         | >40              |
|         | 15:02 |                      | 42.4               |         |                  |
| Trench  | 8:50  | 2+50                 | 57.7               |         | >40              |
|         | 13:30 | 3+00                 | 54.3               |         |                  |
|         | 14:34 | 2+00                 | 55.4               |         |                  |
|         |       | <u>DENSITY:</u>      | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            | PCF     |                  |
| Initial | 10:07 |                      | 64.4               |         | >63              |
|         | 15:04 |                      | 64.5               |         |                  |
| Trench  | 8:53  |                      | 92                 |         | 64 TO 90         |
|         | 13:33 |                      | 91                 |         | (AT LEAST 20 PCF |
|         | 14:36 |                      | 91.5               |         | LIGHTER THAN BF) |
|         |       | <u>FILTRATE LOSS</u> | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            | CC      |                  |
| Initial | 10:39 |                      | 18                 |         | <25 IN 30 MINS.  |
|         | 15:46 |                      | 18.8               |         |                  |
| Trench  | 9:27  |                      | 24                 |         | <25 IN 30 MINS.  |
|         | 14:04 |                      | 26.5               |         |                  |
|         | 15:08 |                      | 24                 |         |                  |
|         |       | <u>pH</u>            | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            |         |                  |
| Initial | 10:11 |                      | 7                  |         | 7-10             |
|         | 15:08 |                      | 7                  |         |                  |

COMMENTS / SPECIAL EVENTS:

SIGNED: \_\_\_\_\_ D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - START OF SHIFT**

**DAILY QC RESULTS**

**DATE:** 8/27/12

**SHIFT NO.** I

**INSPECTOR:** D. Guy

| STATION<br>NO. | DEPTH |
|----------------|-------|
| 2+30           | 0.0   |
| 2+40           | 4.8   |
| 2+50           | 12.0  |
| 2+60           | 18.3  |
| 2+70           | 23.2  |
| 2+80           | 26.5  |
| 2+90           | 26.8  |
| 3+00           | 30.1  |
| 3+10           | 30.5  |
| 3+20           | 34.4  |
| 3+30           | 35.9  |
| 3+40           | 37.8  |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |

**COMMENTS:**

**SIGNED:** D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - END OF SHIFT**

**DAILY QC RESULTS**

**DATE:** 8/27/12

**SHIFT NO.** 1

**INSPECTOR:** D. Guy

| STATION<br>NO. | DEPTH |    |
|----------------|-------|----|
| 2+60           | 0.0   |    |
| 2+70           | 2.0   |    |
| 2+80           | 4.0   |    |
| 2+90           | 7.4   |    |
| 3+00           | 11.7  |    |
| 3+10           | 16.5  |    |
| 3+20           | 22.4  |    |
| 3+30           | 27.7  |    |
| 3+40           | 29.4  |    |
| 3+50           | 31.5  |    |
| 3+60           | 32.4  |    |
| 3+70           | 36.6  |    |
| 3+80           | 43.3  |    |
| 3+90           | 43.6  | ND |
| 4+00           | 28.1  | ND |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |

**COMMENTS:**

**SIGNED:** D.Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## SOIL-BENTONITE BACKFILL

### DAILY QC RESULTS

DATE: 8/27/12

SHIFT NO. I

INSPECTOR: D. Guy

| SLUMP   | I per Batch                        | REQUIREMENT |
|---------|------------------------------------|-------------|
| STATION | TIME                               | RESULT      |
|         | 10:05                              | 3           |
|         | 13:45                              | 3           |
|         | 15:50                              | 3           |
| DENSITY | PRIOR TO BACKFILLING - TWICE DAILY | INCHES      |

3" TO 6"  
(Prior to Backfilling)

|              |                                       |        |
|--------------|---------------------------------------|--------|
| STATION      | TIME                                  | RESULT |
|              | 10:20                                 | 116    |
|              | 14:00                                 | 117    |
|              | 16:20                                 | 117    |
| PERMEABILITY | (Laboratory) EVERY 300 CY OF BACKFILL | PCF    |

110-125 pcf  
20 PCF > Slurry Unit  
Weight

|           |                                       |                             |
|-----------|---------------------------------------|-----------------------------|
| STATION   | SAMPLE NO.                            |                             |
|           |                                       |                             |
|           |                                       |                             |
| GRADATION | (Laboratory) EVERY 300 CY OF BACKFILL | < 1X10 <sup>-7</sup> CM/SEC |

|         |                                       |                  |
|---------|---------------------------------------|------------------|
| STATION | SAMPLE NO.                            |                  |
|         |                                       |                  |
|         |                                       |                  |
| FINES   | (Laboratory) EVERY 100 CY OF BACKFILL | 30% - 40% < #200 |

|         |            |                  |
|---------|------------|------------------|
| STATION | SAMPLE NO. |                  |
|         |            |                  |
|         |            |                  |
|         |            | 30% - 40% < #200 |



Shepley's Hill Landfill Barrier wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## BENTONITE SLURRY

### DAILY QC RESULTS

DATE: 8/27/12

SHIFT NO. 1

INSPECTOR: D. Guy

|         |       | <u>VISCOSITY</u>     | <u>TWICE DAILY</u> |         |                  |
|---------|-------|----------------------|--------------------|---------|------------------|
|         | TIME  |                      | RESULT             | SECONDS | REQUIREMENT      |
| Initial | 8:50  |                      | 45.2               |         | >40              |
|         | 13:15 |                      | 39.7               |         |                  |
| Trench  | 11:30 | 2+50                 | 70.4               |         | >40              |
|         | 14:15 | 3+00                 | 70.1               |         |                  |
|         | 15:10 | 2+00                 | 55.4               |         |                  |
|         |       | <u>DENSITY:</u>      | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            | PCF     |                  |
| Initial | 8:54  |                      | 64.4               |         | >63              |
|         | 13:16 |                      | 63.8               |         |                  |
| Trench  | 11:33 |                      | 94.5               |         | <b>64 TO 90</b>  |
|         | 14:18 |                      | 95                 |         | (AT LEAST 20 PCF |
|         | 15:15 |                      | 89.0               |         | LIGHTER THAN BF) |
|         |       | <u>FILTRATE LOSS</u> | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            | CC      |                  |
| Initial | 9:25  |                      | 18.2               |         | <25 IN 30 MINS.  |
|         | 13:47 |                      | 19                 |         |                  |
| Trench  | 12:04 |                      | 26                 |         | <25 IN 30 MINS.  |
|         | 14:49 |                      | 26.5               |         |                  |
|         | 15:50 |                      | 24                 |         |                  |
|         |       | <u>pH</u>            | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            |         |                  |
| Initial | 9:00  |                      | 7                  |         | 7-10             |
|         | 15:08 |                      | 7                  |         |                  |

COMMENTS / SPECIAL EVENTS:

SIGNED: \_\_\_\_\_ D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - START OF SHIFT**

**DAILY QC RESULTS**

DATE: 8/28/12                      SHIFT NO. 1                      INSPECTOR: D. Guy

| STATION NO. | DEPTH |    |
|-------------|-------|----|
| 2+60        | 0.0   |    |
| 2+70        | 2.0   |    |
| 2+80        | 4.0   |    |
| 2+90        | 7.5   |    |
| 3+00        | 13.2  |    |
| 3+10        | 17.7  |    |
| 3+20        | 20.5  |    |
| 3+30        | 28.0  |    |
| 3+40        | 29.8  |    |
| 3+50        | 32.0  |    |
| 3+60        | 33.0  |    |
| 3+70        | 36.7  |    |
| 3+80        | 43.3  |    |
| 3+90        | 43.5  | ND |
| 4+00        | 28.1  | ND |
|             |       |    |
|             |       |    |
|             |       |    |
|             |       |    |
|             |       |    |
|             |       |    |
|             |       |    |
|             |       |    |

COMMENTS:

SIGNED: D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - END OF SHIFT**

**DAILY QC RESULTS**

**DATE:** 8/28/12

**SHIFT NO.** I

**INSPECTOR:** D. Guy

| STATION<br>NO. | DEPTH |    |
|----------------|-------|----|
| 2+80           | 0.0   |    |
| 2+90           | 3.3   |    |
| 3+00           | 7.5   |    |
| 3+10           | 8.0   |    |
| 3+20           | 13.2  |    |
| 3+30           | 17.1  |    |
| 3+40           | 29.1  |    |
| 3+50           | 31.5  |    |
| 3+60           | 33.9  |    |
| 3+70           | 36.5  |    |
| 3+80           | 37.0  |    |
| 3+90           | 37.0  |    |
| 4+00           | 39.2  |    |
| 4+10           | 41.8  | ND |
| 4+20           | 39.4  | ND |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |

**COMMENTS:**

**SIGNED:** D.Guy  
CONTRACTOR'S QC



Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**SOIL-BENTONITE BACKFILL**

**DAILY QC RESULTS**

DATE: 8/28/12

SHIFT NO. I

INSPECTOR: D. Guy

| STATION | TIME  | RESULT | REQUIREMENT                        |
|---------|-------|--------|------------------------------------|
|         | 10:45 | 3      | 3" TO 6"<br>(Prior to Backfilling) |
|         | 15:45 | 3      |                                    |
|         |       |        |                                    |

**DENSITY** PRIOR TO BACKFILLING - TWICE DAILY

| STATION | TIME  | RESULT |                                             |
|---------|-------|--------|---------------------------------------------|
|         | 11:00 | 119.5  | 110-125 pcf<br>20 PCF>Slurry Unit<br>Weight |
|         | 16:00 | 120    |                                             |
|         |       |        |                                             |

**PERMEABILITY** (Laboratory) EVERY 300 CY OF BACKFILL

| STATION | SAMPLE NO. |                            |
|---------|------------|----------------------------|
|         |            | <1X10 <sup>-7</sup> CM/SEC |
|         |            |                            |

| STATION | SAMPLE NO. |                 |
|---------|------------|-----------------|
|         |            | 30% - 40%%<#200 |
|         |            |                 |

| STATION | SAMPLE NO. |                 |
|---------|------------|-----------------|
|         |            | 30% - 40%%<#200 |

Shepley's Hill Landfill Barrier wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## BENTONITE SLURRY

### DAILY QC RESULTS

DATE: 8/28/12

SHIFT NO. 1

INSPECTOR: D. Guy

| <u>VISCOSITY</u>     |       |      | <u>TWICE DAILY</u> | SECONDS | REQUIREMENT                          |
|----------------------|-------|------|--------------------|---------|--------------------------------------|
| Initial              | TIME  |      | RESULT             |         |                                      |
|                      | 12:50 |      | 39.5               |         | >40                                  |
| Trench               |       |      |                    |         |                                      |
|                      | 14:20 | 3+60 | 50.4               |         | >40                                  |
|                      | 15:35 | 3+20 | 53.6               |         |                                      |
|                      |       |      |                    |         |                                      |
| <u>DENSITY:</u>      |       |      | <u>TWICE DAILY</u> | PCF     | REQUIREMENT                          |
| Initial              | TIME: |      | RESULT:            |         |                                      |
|                      | 12:55 |      | 63.8               |         | >63                                  |
| Trench               |       |      |                    |         |                                      |
|                      | 14:23 |      | 87                 |         | 64 TO 90                             |
|                      | 15:38 |      | 88.4               |         | (AT LEAST 20 PCF<br>LIGHTER THAN BF) |
|                      |       |      |                    |         |                                      |
| <u>FILTRATE LOSS</u> |       |      | <u>TWICE DAILY</u> | CC      | REQUIREMENT                          |
| Initial              | TIME: |      | RESULT:            |         |                                      |
|                      | 13:26 |      | 18.4               |         | <25 IN 30 MINS.                      |
| Trench               |       |      |                    |         |                                      |
|                      | 14:55 |      | 26                 |         | <25 IN 30 MINS.                      |
|                      | 16:10 |      | 26                 |         |                                      |
|                      |       |      |                    |         |                                      |
| <u>pH</u>            |       |      | <u>TWICE DAILY</u> |         | REQUIREMENT                          |
| Initial              | TIME: |      | RESULT:            |         |                                      |
|                      | 12:58 |      | 7                  |         | 7-10                                 |
|                      |       |      |                    |         |                                      |

#### COMMENTS / SPECIAL EVENTS:

\*\* Only worked on Trench for a 1/2 Shift (Started Digging at 12:30 pm)

SIGNED: \_\_\_\_\_ D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - START OF SHIFT**

**DAILY QC RESULTS**

DATE: 8/29/12                      SHIFT NO. 1                      INSPECTOR: D. Guy

| STATION<br>NO. | DEPTH |
|----------------|-------|
| 2+80           | 0.0   |
| 2+90           | 3.3   |
| 3+00           | 7.3   |
| 3+10           | 8.2   |
| 3+20           | 14.2  |
| 3+30           | 18.1  |
| 3+40           | 31.2  |
| 3+50           | 32.3  |
| 3+60           | 34.5  |
| 3+70           | 37.3  |
| 3+80           | 37.4  |
| 3+90           | 38.1  |
| 4+00           | 39.3  |
| 4+10           | 41.8  |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |

ND

COMMENTS:

SIGNED: D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - END OF SHIFT**

**DAILY QC RESULTS**

**DATE:** 8/29/12

**SHIFT NO.** 1

**INSPECTOR:** D. Guy

| STATION<br>NO. | DEPTH |    |
|----------------|-------|----|
| 3+10           | 0.0   |    |
| 3+20           | 1.0   |    |
| 3+30           | 5.1   |    |
| 3+40           | 12.0  |    |
| 3+50           | 18.8  |    |
| 3+60           | 22.9  |    |
| 3+70           | 24.9  |    |
| 3+80           | 26.4  |    |
| 3+90           | 26.4  |    |
| 4+00           | 26.6  |    |
| 4+10           | 26.8  |    |
| 4+20           | 29.5  |    |
| 4+30           | 29.8  |    |
| 4+40           | 32.1  |    |
| 4+50           | 32.8  | ND |
| 4+55           | 37.6  | ND |
| 4+60           | 37.3  | ND |
| 4+70           | 24.0  | ND |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |

**COMMENTS:**

**SIGNED:** D.Guy  
CONTRACTOR'S QC



# MORETRENCH

100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## SOIL-BENTONITE BACKFILL

### DAILY QC RESULTS

DATE: 8/29/12

SHIFT NO. 1

INSPECTOR: D. Guy

#### SLUMP

1 per Batch

#### REQUIREMENT

STATION

TIME

RESULT

|  |
|--|
|  |
|  |
|  |

|       |
|-------|
| 11:15 |
| 14:38 |
|       |

|   |
|---|
| 3 |
| 3 |
|   |

INCHES

3" TO 6"  
(Prior to Backfilling)

#### DENSITY

PRIOR TO BACKFILLING - TWICE DAILY

STATION

TIME

RESULT

|  |
|--|
|  |
|  |

|       |
|-------|
| 11:34 |
| 15:00 |
|       |

|       |
|-------|
| 118   |
| 117.5 |
|       |

PCF

110-125 pcf  
20 PCF > Slurry Unit  
Weight

#### PERMEABILITY

(Laboratory) EVERY 300 CY OF BACKFILL

STATION

SAMPLE NO.

|  |
|--|
|  |
|  |

|  |
|--|
|  |
|  |

<  $1 \times 10^{-7}$  CM/SEC

#### GRADATION

(Laboratory) EVERY 300 CY OF BACKFILL

STATION

SAMPLE NO.

|  |
|--|
|  |
|  |

|  |
|--|
|  |
|  |

30% - 40% < #200

#### FINES

(Laboratory) EVERY 100 CY OF BACKFILL

STATION

SAMPLE NO.

|  |
|--|
|  |
|--|

|  |
|--|
|  |
|--|

30% - 40% < #200

Shepley's Hill Landfill Barrier wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## BENTONITE SLURRY

### DAILY QC RESULTS

DATE: 8/29/12

SHIFT NO. 1

INSPECTOR: D. Guy

|         |       | <u>VISCOSITY</u>     | <u>TWICE DAILY</u> |         |                  |
|---------|-------|----------------------|--------------------|---------|------------------|
|         | TIME  |                      | RESULT             | SECONDS | REQUIREMENT      |
| Initial | 8:30  |                      | 40.5               |         | >40              |
|         | 14:50 |                      | 39.1               |         |                  |
| Trench  | 9:10  | 3+30                 | 50.5               |         | >40              |
|         | 10:30 | 3+80                 | 52.1               |         |                  |
|         | 15:30 | 4+30                 | 54                 |         |                  |
|         |       | <u>DENSITY:</u>      | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            | PCF     |                  |
| Initial | 8:32  |                      | 64.2               |         | >63              |
|         | 14:53 |                      | 63.8               |         |                  |
| Trench  | 9:15  |                      | 87                 |         | <b>64 TO 90</b>  |
|         | 10:34 |                      | 88.2               |         | (AT LEAST 20 PCF |
|         | 15:33 |                      | 89.2               |         | LIGHTER THAN BF) |
|         |       | <u>FILTRATE LOSS</u> | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            | CC      |                  |
| Initial | 9:05  |                      | 16.8               |         | <25 IN 30 MINS.  |
|         | 15:25 |                      | 17.2               |         |                  |
| Trench  | 9:50  |                      | 24.2               |         | <25 IN 30 MINS.  |
|         | 11:05 |                      | 24.8               |         |                  |
|         | 16:04 |                      | 25.5               |         |                  |
|         |       | <u>pH</u>            | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            |         |                  |
| Initial | 8:40  |                      | 7                  |         | 7-10             |
|         | 14:56 |                      | 7                  |         |                  |

COMMENTS / SPECIAL EVENTS:

SIGNED: \_\_\_\_\_ D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - START OF SHIFT**

**DAILY QC RESULTS**

**DATE:** 8/30/12

**SHIFT NO.** I

**INSPECTOR:** D. Guy

| STATION<br>NO. | DEPTH |    |
|----------------|-------|----|
| 3+10           | 0.0   |    |
| 3+20           | 1.0   |    |
| 3+30           | 5.0   |    |
| 3+40           | 12.4  |    |
| 3+50           | 21.2  |    |
| 3+60           | 23.2  |    |
| 3+70           | 25.3  |    |
| 3+80           | 26.5  |    |
| 3+90           | 26.8  |    |
| 4+00           | 27.8  |    |
| 4+10           | 26.8  |    |
| 4+20           | 30.8  |    |
| 4+30           | 30.3  |    |
| 4+40           | 32.5  |    |
| 4+50           | 36.2  | ND |
| 4+55           | 37.3  | ND |
| 4+60           | 36.1  | ND |
| 4+70           | 24.8  | ND |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |

**COMMENTS:**

**SIGNED:** D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - END OF SHIFT**

**DAILY QC RESULTS**

**DATE: 8/30/12**

**SHIFT NO. 1**

**INSPECTOR: D. Guy**

| STATION<br>NO. | DEPTH |    |
|----------------|-------|----|
| 3+80           | 1.5   |    |
| 3+90           | 3.2   |    |
| 4+00           | 4.0   |    |
| 4+10           | 5.5   |    |
| 4+20           | 7.0   |    |
| 4+30           | 10.2  |    |
| 4+40           | 12.2  |    |
| 4+50           | 16.6  |    |
| 4+60           | 28.0  |    |
| 4+70           | 28.8  |    |
| 4+80           | 30.6  |    |
| 4+90           | 30.3  |    |
| 5+00           | 39.0  |    |
| 5+10           | 39.6  |    |
| 5+20           | 39.4  |    |
| 5+30           | 35.5  | ND |
| 5+40           | 13.2  | ND |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |

**COMMENTS:**

**SIGNED:** D.Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## SOIL-BENTONITE BACKFILL

### DAILY QC RESULTS

DATE: 8/30/12

SHIFT NO. I

INSPECTOR: D. Guy

#### SLUMP

1 per Batch

#### REQUIREMENT

STATION

TIME

RESULT

|  |
|--|
|  |
|  |
|  |

|       |
|-------|
| 10:30 |
| 15:45 |
|       |

|   |
|---|
| 3 |
| 3 |
|   |

INCHES

3" TO 6"  
(Prior to Backfilling)

#### DENSITY

PRIOR TO BACKFILLING - TWICE DAILY

STATION

TIME

RESULT

|  |
|--|
|  |
|  |

|       |
|-------|
| 10:46 |
| 16:00 |
|       |

|       |
|-------|
| 119.5 |
| 121.5 |
|       |

PCF

110-125 pcf  
20 PCF > Slurry Unit  
Weight

#### PERMEABILITY

(Laboratory) EVERY 300 CY OF BACKFILL

STATION

SAMPLE NO.

|  |
|--|
|  |
|  |

|  |
|--|
|  |
|  |

<  $1 \times 10^{-7}$  CM/SEC

#### GRADATION

(Laboratory) EVERY 300 CY OF BACKFILL

STATION

SAMPLE NO.

|  |
|--|
|  |
|  |

|  |
|--|
|  |
|  |

30% - 40% < #200

#### FINES

(Laboratory) EVERY 100 CY OF BACKFILL

STATION

SAMPLE NO.

|  |
|--|
|  |
|--|

|  |
|--|
|  |
|--|

30% - 40% < #200

Shepley's Hill Landfill Barrier wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## BENTONITE SLURRY

### DAILY QC RESULTS

DATE: 8/30/12

SHIFT NO. 1

INSPECTOR: D. Guy

|         |       | <u>VISCOSITY</u>     | <u>TWICE DAILY</u> |         |                  |
|---------|-------|----------------------|--------------------|---------|------------------|
|         | TIME  |                      | RESULT             | SECONDS | REQUIREMENT      |
| Initial | 8:15  |                      | 40.3               |         | >40              |
|         | 14:00 |                      | 40.9               |         |                  |
| Trench  | 10:20 | 4+50                 | 55.8               |         | >40              |
|         | 11:15 | 4+00                 | 53.7               |         |                  |
|         | 13:16 | 4+20                 | 54                 |         |                  |
|         |       | <u>DENSITY:</u>      | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            | PCF     |                  |
| Initial | 8:18  |                      | 64.2               |         | >63              |
|         | 14:03 |                      | 64.2               |         |                  |
| Trench  | 10:25 |                      | 91                 |         | 64 TO 90         |
|         | 11:19 |                      | 89                 |         | (AT LEAST 20 PCF |
|         | 13:20 |                      | 89.2               |         | LIGHTER THAN BF) |
|         |       | <u>FILTRATE LOSS</u> | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            | CC      |                  |
| Initial | 8:49  |                      | 17.4               |         | <25 IN 30 MINS.  |
|         | 14:35 |                      | 17.2               |         |                  |
| Trench  | 10:57 |                      | 24                 |         | <25 IN 30 MINS.  |
|         | 11:51 |                      | 25.2               |         |                  |
|         | 13:52 |                      | 24.8               |         |                  |
|         |       | <u>pH</u>            | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            |         |                  |
| Initial | 8:21  |                      | 7                  |         | 7-10             |
|         | 14:06 |                      | 7                  |         |                  |

COMMENTS / SPECIAL EVENTS:

SIGNED: \_\_\_\_\_ D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - START OF SHIFT**

**DAILY QC RESULTS**

DATE: 8/31/12                      SHIFT NO. 1                      INSPECTOR: D. Guy

| STATION<br>NO. | DEPTH |    |
|----------------|-------|----|
| 3+80           | 0.0   |    |
| 3+90           | 3.1   |    |
| 4+00           | 4.4   |    |
| 4+10           | 5.5   |    |
| 4+20           | 8.7   |    |
| 4+30           | 10.4  |    |
| 4+40           | 12.4  |    |
| 4+50           | 17.2  |    |
| 4+60           | 28.8  |    |
| 4+70           | 30.4  |    |
| 4+80           | 30.8  |    |
| 4+90           | 36.5  |    |
| 5+00           | 39.1  |    |
| 5+10           | 39.6  |    |
| 5+20           | 39.3  |    |
| 5+30           | 35.5  | ND |
| 5+40           | 12.9  | ND |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |

COMMENTS:

SIGNED: D. Guy  
CONTRACTOR'S QC





100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - END OF SHIFT**

**DAILY QC RESULTS**

**DATE:** 8/31/12

**SHIFT NO.** I

**INSPECTOR:** D. Guy

| STATION<br>NO. | DEPTH |    |
|----------------|-------|----|
| 4+40           | 0.0   |    |
| 4+50           | 3.2   |    |
| 4+60           | 8.0   |    |
| 4+70           | 27.5  |    |
| 4+80           | 27.0  |    |
| 4+90           | 29.8  |    |
| 5+00           | 37.2  |    |
| 5+10           | 37.5  |    |
| 5+20           | 39.7  |    |
| 5+30           | 38.8  |    |
| 5+40           | 38.0  |    |
| 5+50           | 39.5  |    |
| 5+60           | 39.5  |    |
| 5+70           | 5.0   | ND |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |

**COMMENTS:**

**SIGNED:** D.Guy  
CONTRACTOR'S QC



Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**SOIL-BENTONITE BACKFILL**

**DAILY QC RESULTS**

DATE: 8/31/12

SHIFT NO. 1

INSPECTOR: D. Guy

| STATION | TIME  | RESULT | REQUIREMENT                        |
|---------|-------|--------|------------------------------------|
|         | 11:15 | 3.5    | 3" TO 6"<br>(Prior to Backfilling) |
|         | 13:18 | 3      |                                    |
|         |       |        |                                    |

**DENSITY** PRIOR TO BACKFILLING - TWICE DAILY

| STATION | TIME  | RESULT |                                             |
|---------|-------|--------|---------------------------------------------|
|         | 11:19 | 119    | 110-125 pcf<br>20 PCF>Slurry Unit<br>Weight |
|         | 13:21 | 118    |                                             |
|         |       |        |                                             |

**PERMEABILITY** (Laboratory) EVERY 300 CY OF BACKFILL

| STATION | SAMPLE NO. |                            |
|---------|------------|----------------------------|
|         |            | <1X10 <sup>-7</sup> CM/SEC |
|         |            |                            |

**GRADATION** (Laboratory) EVERY 300 CY OF BACKFILL

| STATION | SAMPLE NO. |                 |
|---------|------------|-----------------|
|         |            | 30% - 40%%<#200 |
|         |            |                 |

**FINES** (Laboratory) EVERY 100 CY OF BACKFILL

| STATION | SAMPLE NO. |                 |
|---------|------------|-----------------|
|         |            | 30% - 40%%<#200 |

Shepley's Hill Landfill Barrier wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## BENTONITE SLURRY

### DAILY QC RESULTS

DATE: 8/31/12

SHIFT NO. 1

INSPECTOR: D. Guy

|         |       | <u>VISCOSITY</u>     | <u>TWICE DAILY</u> |         |                                      |
|---------|-------|----------------------|--------------------|---------|--------------------------------------|
|         | TIME  |                      | RESULT             | SECONDS | REQUIREMENT                          |
| Initial | 10:08 |                      | 40.4               |         | >40                                  |
|         |       |                      |                    |         |                                      |
| Trench  | 8:50  | 4+90 @ 30'           | 59                 |         | >40                                  |
|         | 13:00 | 5+20 @ 15'           | 56                 |         |                                      |
|         |       |                      |                    |         |                                      |
|         |       | <u>DENSITY:</u>      | <u>TWICE DAILY</u> |         |                                      |
|         | TIME: |                      | RESULT:            | PCF     |                                      |
| Initial | 10:13 |                      | 64.2               |         | >63                                  |
|         |       |                      |                    |         |                                      |
| Trench  | 8:54  |                      | 91.5               |         | 64 TO 90                             |
|         | 13:04 |                      | 89.5               |         | (AT LEAST 20 PCF<br>LIGHTER THAN BF) |
|         |       |                      |                    |         |                                      |
|         |       | <u>FILTRATE LOSS</u> | <u>TWICE DAILY</u> |         |                                      |
|         | TIME: |                      | RESULT:            | CC      |                                      |
| Initial | 10:44 |                      | 18                 |         | <25 IN 30 MINS.                      |
|         |       |                      |                    |         |                                      |
| Trench  | 9:27  |                      | 26                 |         | <25 IN 30 MINS.                      |
|         | 13:36 |                      | 24                 |         |                                      |
|         |       |                      |                    |         |                                      |
|         |       | <u>pH</u>            | <u>TWICE DAILY</u> |         |                                      |
|         | TIME: |                      | RESULT:            |         |                                      |
| Initial | 10:15 |                      | 7                  |         | 7-10                                 |
|         |       |                      |                    |         |                                      |

COMMENTS / SPECIAL EVENTS:

SIGNED: \_\_\_\_\_ D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - START OF SHIFT**

**DAILY QC RESULTS**

DATE: 9/4/12                      SHIFT NO. 1                      INSPECTOR: D. Guy

| STATION<br>NO. | DEPTH |
|----------------|-------|
| 4+40           | 0.0   |
| 4+50           | 3.1   |
| 4+60           | 8.3   |
| 4+70           | 27.6  |
| 4+80           | 27.7  |
| 4+90           | 30.1  |
| 5+00           | 37.1  |
| 5+10           | 37.5  |
| 5+20           | 39.8  |
| 5+30           | 39.6  |
| 5+40           | 39.8  |
| 5+50           | 39.4  |
| 5+60           | 39.9  |
| 5+70           | 5.2   |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |

ND

COMMENTS:

SIGNED: D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - END OF SHIFT**

**DAILY QC RESULTS**

DATE: 9/4/12                      SHIFT NO. 1                      INSPECTOR: D. Guy

| STATION NO. | DEPTH |    |
|-------------|-------|----|
| 4+90        | 0.0   |    |
| 5+00        | 5.0   |    |
| 5+10        | 6.2   |    |
| 5+20        | 12.9  |    |
| 5+30        | 24.7  |    |
| 5+40        | 29.5  |    |
| 5+50        | 29.0  |    |
| 5+60        | 29.5  |    |
| 5+70        | 29.0  |    |
| 5+80        | 31.3  |    |
| 5+90        | 36.5  |    |
| 6+00        | 36.6  |    |
| 6+10        | 36.6  |    |
| 6+20        | 36.5  | ND |
| 6+30        | 9.1   | ND |
|             |       |    |
|             |       |    |
|             |       |    |
|             |       |    |
|             |       |    |
|             |       |    |
|             |       |    |
|             |       |    |

COMMENTS:

SIGNED: D.Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## SOIL-BENTONITE BACKFILL

### DAILY QC RESULTS

DATE: 9/4/12

SHIFT NO. 1

INSPECTOR: D. Guy

| SLUMP   | 1 per Batch                        |        | REQUIREMENT                        |
|---------|------------------------------------|--------|------------------------------------|
| STATION | TIME                               | RESULT | 3" TO 6"<br>(Prior to Backfilling) |
|         | 10:20                              | 4      |                                    |
|         | 15:49                              | 3      |                                    |
|         |                                    |        |                                    |
| DENSITY | PRIOR TO BACKFILLING - TWICE DAILY |        |                                    |

| STATION      | TIME                                  | RESULT | 110-125 pcf<br>20 PCF>Slurry Unit<br>Weight |
|--------------|---------------------------------------|--------|---------------------------------------------|
|              | 11:19                                 | 123    |                                             |
|              | 16:21                                 | 121    |                                             |
|              |                                       |        |                                             |
| PERMEABILITY | (Laboratory) EVERY 300 CY OF BACKFILL |        |                                             |

| STATION | SAMPLE NO. | <1X10 <sup>-7</sup> CM/SEC |
|---------|------------|----------------------------|
|         |            |                            |
|         |            |                            |
|         |            |                            |

| GRADATION |            | (Laboratory) EVERY 300 CY OF BACKFILL |
|-----------|------------|---------------------------------------|
| STATION   | SAMPLE NO. |                                       |
|           |            |                                       |
|           |            | 30% - 40%%<#200                       |

| FINES   |            | (Laboratory) EVERY 100 CY OF BACKFILL |
|---------|------------|---------------------------------------|
| STATION | SAMPLE NO. |                                       |
|         |            | 30% - 40%%<#200                       |

Shepley's Hill Landfill Barrier wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## BENTONITE SLURRY

### DAILY QC RESULTS

DATE: 9/4/12

SHIFT NO. 1

INSPECTOR: D. Guy

|         |       | <u>VISCOSITY</u>     | <u>TWICE DAILY</u> |         |                  |
|---------|-------|----------------------|--------------------|---------|------------------|
|         | TIME  |                      | RESULT             | SECONDS | REQUIREMENT      |
| Initial | 11:34 |                      | 39.5               |         | >40              |
|         | 15:35 |                      | 40.1               |         |                  |
| Trench  | 11:00 | 5+00 @ 25'           | 54.4               |         | >40              |
|         | 13:50 | 5+50 @ 35'           | 56                 |         |                  |
|         | 16:15 | 5+80 @ 15'           | 64                 |         |                  |
|         |       | <u>DENSITY:</u>      | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            | PCF     |                  |
| Initial | 11:38 |                      | 63.8               |         | >63              |
|         | 15:40 |                      | 64                 |         |                  |
| Trench  | 11:04 |                      | 87.2               |         | 64 TO 90         |
|         | 13:53 |                      | 89                 |         | (AT LEAST 20 PCF |
|         | 16:21 |                      | 91.5               |         | LIGHTER THAN BF) |
|         |       | <u>FILTRATE LOSS</u> | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            | CC      |                  |
| Initial | 12:09 |                      | 18.2               |         | <25 IN 30 MINS.  |
|         | 16:11 |                      | 18                 |         |                  |
| Trench  | 11:36 |                      | 22                 |         | <25 IN 30 MINS.  |
|         | 14:25 |                      | 23                 |         |                  |
|         | 16:52 |                      | 26                 |         |                  |
|         |       | <u>pH</u>            | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            |         |                  |
| Initial | 11:35 |                      | 7                  |         | 7-10             |
|         | 15:37 |                      | 7                  |         |                  |

COMMENTS / SPECIAL EVENTS:

SIGNED: \_\_\_\_\_ D. Guy  
CONTRACTOR'S QC





100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - START OF SHIFT**

**DAILY QC RESULTS**

DATE: 9/5/12                      SHIFT NO. 1                      INSPECTOR: D. Guy

| STATION NO. | DEPTH |    |
|-------------|-------|----|
| 4+90        | 0.0   |    |
| 5+00        | 4.8   |    |
| 5+10        | 7.1   |    |
| 5+20        | 14.8  |    |
| 5+30        | 26.3  |    |
| 5+40        | 29.0  |    |
| 5+50        | 29.1  |    |
| 5+60        | 30.0  |    |
| 5+70        | 29.5  |    |
| 5+80        | 33.6  |    |
| 5+90        | 36.6  |    |
| 6+00        | 36.7  |    |
| 6+10        | 36.4  |    |
| 6+20        | 36.3  | ND |
| 6+30        | 9.1   | ND |
|             |       |    |
|             |       |    |
|             |       |    |
|             |       |    |
|             |       |    |
|             |       |    |
|             |       |    |
|             |       |    |

COMMENTS:

SIGNED: D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - END OF SHIFT**

**DAILY QC RESULTS**

DATE: 9/5/12                      SHIFT NO. 1                      INSPECTOR: D. Guy

| STATION NO. | DEPTH |    |
|-------------|-------|----|
| 5+00        | 0.0   |    |
| 5+10        | 2.4   |    |
| 5+20        | 6.8   |    |
| 5+30        | 19.7  |    |
| 5+40        | 22.5  |    |
| 5+50        | 24.2  |    |
| 5+60        | 25.2  |    |
| 5+70        | 30.0  |    |
| 5+80        | 29.6  |    |
| 5+90        | 29.3  |    |
| 6+00        | 30.2  |    |
| 6+10        | 34.5  |    |
| 6+20        | 37.7  |    |
| 6+30        | 36.9  | ND |
| 6+40        | 39.0  | ND |
| 6+50        | 4.4   | ND |
|             |       |    |
|             |       |    |
|             |       |    |
|             |       |    |
|             |       |    |
|             |       |    |
|             |       |    |

COMMENTS:

SIGNED: D.Guy  
CONTRACTOR'S QC

# MORETRENCH

100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## SOIL-BENTONITE BACKFILL

### DAILY QC RESULTS

DATE: 9/5/12

SHIFT NO. 1

INSPECTOR: D. Guy

#### SLUMP

1 per Batch

#### REQUIREMENT

STATION

TIME

RESULT

|  |
|--|
|  |
|  |
|  |

|       |
|-------|
| 10:40 |
|       |
|       |

|   |
|---|
| 3 |
|   |
|   |

INCHES

3" TO 6"  
(Prior to Backfilling)

#### DENSITY

PRIOR TO BACKFILLING - TWICE DAILY

STATION

TIME

RESULT

|  |
|--|
|  |
|  |

|       |
|-------|
| 11:19 |
|       |
|       |

|     |
|-----|
| 121 |
|     |
|     |

PCF

110-125 pcf  
20 PCF > Slurry Unit  
Weight

#### PERMEABILITY

(Laboratory) EVERY 300 CY OF BACKFILL

STATION

SAMPLE NO.

|  |
|--|
|  |
|  |

|  |
|--|
|  |
|  |

<  $1 \times 10^{-7}$  CM/SEC

#### GRADATION

(Laboratory) EVERY 300 CY OF BACKFILL

STATION

SAMPLE NO.

|  |
|--|
|  |
|  |

|  |
|--|
|  |
|  |

30% - 40% < #200

#### FINES

(Laboratory) EVERY 100 CY OF BACKFILL

STATION

SAMPLE NO.

|  |
|--|
|  |
|--|

|  |
|--|
|  |
|--|

30% - 40% < #200

Shepley's Hill Landfill Barrier wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## BENTONITE SLURRY

### DAILY QC RESULTS

DATE: 9/5/12

SHIFT NO. 1

INSPECTOR: D. Guy

|         |       | <u>VISCOSITY</u>     | <u>TWICE DAILY</u> |         |                                      |
|---------|-------|----------------------|--------------------|---------|--------------------------------------|
|         | TIME  |                      | RESULT             |         | REQUIREMENT                          |
| Initial | 9:50  | 5+50 @ 25'           | 40.1               | SECONDS | >40                                  |
|         |       |                      |                    |         |                                      |
| Trench  | 14:15 |                      | 55.3               |         | >40                                  |
|         |       |                      |                    |         |                                      |
|         |       | <u>DENSITY:</u>      | <u>TWICE DAILY</u> |         |                                      |
|         | TIME: |                      | RESULT:            |         |                                      |
| Initial | 9:54  |                      | 64                 | PCF     | >63                                  |
|         |       |                      |                    |         |                                      |
| Trench  | 14:18 |                      | 89                 |         | 64 TO 90                             |
|         |       |                      |                    |         | (AT LEAST 20 PCF<br>LIGHTER THAN BF) |
|         |       | <u>FILTRATE LOSS</u> | <u>TWICE DAILY</u> |         |                                      |
|         | TIME: |                      | RESULT:            |         |                                      |
| Initial | 10:27 |                      | 17.8               | CC      | <25 IN 30 MINS.                      |
|         |       |                      |                    |         |                                      |
| Trench  | 14:50 |                      | 23.6               |         | <25 IN 30 MINS.                      |
|         |       |                      |                    |         |                                      |
|         |       | <u>pH</u>            | <u>TWICE DAILY</u> |         |                                      |
|         | TIME: |                      | RESULT:            |         |                                      |
| Initial | 10:08 |                      | 7                  |         | 7-10                                 |
|         |       |                      |                    |         |                                      |

#### COMMENTS / SPECIAL EVENTS:

\*\* Worked 1/4 Shift (374 Broke down)

SIGNED: \_\_\_\_\_ D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - START OF SHIFT**

**DAILY QC RESULTS**

DATE: 9/6/12                      SHIFT NO. 1                      INSPECTOR: D. Guy

| STATION NO. | DEPTH |    |
|-------------|-------|----|
| 5+00        | 0.0   |    |
| 5+10        | 2.5   |    |
| 5+20        | 8.5   |    |
| 5+30        | 21.2  |    |
| 5+40        | 23.3  |    |
| 5+50        | 25.0  |    |
| 5+60        | 25.2  |    |
| 5+70        | 30.7  |    |
| 5+80        | 30.6  |    |
| 5+90        | 29.2  |    |
| 6+00        | 35.5  |    |
| 6+10        | 35.5  |    |
| 6+20        | 37.6  |    |
| 6+30        | 37.4  | ND |
| 6+40        | 22.4  | ND |
| 6+50        | 4.5   | ND |
|             |       |    |
|             |       |    |
|             |       |    |
|             |       |    |
|             |       |    |
|             |       |    |
|             |       |    |
|             |       |    |

COMMENTS:

SIGNED: D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - END OF SHIFT**

**DAILY QC RESULTS**

DATE: 9/6/12                      SHIFT NO. 1                      INSPECTOR: D. Guy

| STATION<br>NO. | DEPTH |    |
|----------------|-------|----|
| 5+40           | 0.0   |    |
| 5+50           | 5.5   |    |
| 5+60           | 11.6  |    |
| 5+70           | 15.0  |    |
| 5+80           | 21.6  |    |
| 5+90           | 27.0  |    |
| 6+00           | 28.7  |    |
| 6+10           | 30.8  |    |
| 6+20           | 31.4  |    |
| 6+30           | 33.3  |    |
| 6+40           | 34.0  |    |
| 6+50           | 36.8  |    |
| 6+60           | 37.6  |    |
| 6+70           | 41.0  | ND |
| 6+80           | 43.4  | ND |
| 6+90           | 6.3   | ND |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |

COMMENTS:

SIGNED: D.Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## SOIL-BENTONITE BACKFILL

### DAILY QC RESULTS

DATE: 9/6/12

SHIFT NO. 1

INSPECTOR: D. Guy

| SLUMP   | 1 per Batch                        |        | REQUIREMENT                        |
|---------|------------------------------------|--------|------------------------------------|
| STATION | TIME                               | RESULT | 3" TO 6"<br>(Prior to Backfilling) |
|         | 11:00                              | 3      |                                    |
|         | 13:00                              | 3.5    |                                    |
|         |                                    |        |                                    |
| DENSITY | PRIOR TO BACKFILLING - TWICE DAILY |        |                                    |

| STATION      | TIME                                  | RESULT | 110-125 pcf<br>20 PCF>Slurry Unit<br>Weight |
|--------------|---------------------------------------|--------|---------------------------------------------|
|              | 11:19                                 | 118    |                                             |
|              | 13:15                                 | 120    |                                             |
|              |                                       |        |                                             |
| PERMEABILITY | (Laboratory) EVERY 300 CY OF BACKFILL |        |                                             |

| STATION | SAMPLE NO. | <1X10 <sup>-7</sup> CM/SEC |
|---------|------------|----------------------------|
|         |            |                            |
|         |            |                            |
|         |            |                            |

| GRADATION |            | (Laboratory) EVERY 300 CY OF BACKFILL |
|-----------|------------|---------------------------------------|
| STATION   | SAMPLE NO. |                                       |
|           |            |                                       |
|           |            |                                       |

30% - 40%%<#200

| FINES   |            | (Laboratory) EVERY 100 CY OF BACKFILL |
|---------|------------|---------------------------------------|
| STATION | SAMPLE NO. |                                       |
|         |            | 30% - 40%%<#200                       |

Shepley's Hill Landfill Barrier wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## BENTONITE SLURRY

### DAILY QC RESULTS

DATE: 9/6/12

SHIFT NO. 1

INSPECTOR: D. Guy

|         |       | <u>VISCOSITY</u>     | <u>TWICE DAILY</u> |         |                  |
|---------|-------|----------------------|--------------------|---------|------------------|
|         | TIME  |                      | RESULT             | SECONDS | REQUIREMENT      |
| Initial | 8:50  | 5+50 @ 25'           | 43.2               |         | >40              |
|         | 14:00 |                      | 42.6               |         |                  |
| Trench  | 10:20 |                      | 54.9               |         | >40              |
|         | 12:36 |                      | 53.7               |         |                  |
|         | 15:00 |                      | 55.8               |         |                  |
|         |       | <u>DENSITY:</u>      | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            | PCF     |                  |
| Initial | 8:54  |                      | 64.4               |         | >63              |
|         | 14:06 |                      | 64.2               |         |                  |
| Trench  | 10:23 |                      | 89.5               |         | 64 TO 90         |
|         | 12:40 |                      | 88                 |         | (AT LEAST 20 PCF |
|         | 15:10 |                      | 89.5               |         | LIGHTER THAN BF) |
|         |       | <u>FILTRATE LOSS</u> | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            | CC      |                  |
| Initial | 9:27  |                      | 17.4               |         | <25 IN 30 MINS.  |
|         | 14:38 |                      | 16.8               |         |                  |
| Trench  | 10:54 |                      | 24.6               |         | <25 IN 30 MINS.  |
|         | 13:11 |                      | 24.2               |         |                  |
|         | 15:42 |                      | 25.6               |         |                  |
|         |       | <u>pH</u>            | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            |         |                  |
| Initial | 8:56  |                      | 7                  |         | 7-10             |
|         | 14:04 |                      | 7                  |         |                  |

#### COMMENTS / SPECIAL EVENTS:

\*\* Worked 1/4 Shift (374 Broke down)

SIGNED: \_\_\_\_\_ D. Guy  
CONTRACTOR'S QC





100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - START OF SHIFT**

**DAILY QC RESULTS**

**DATE:** 9/7/12

**SHIFT NO.** 1

**INSPECTOR:** D. Guy

| STATION<br>NO. | DEPTH |    |
|----------------|-------|----|
| 5+40           | 0.0   |    |
| 5+50           | 5.3   |    |
| 5+60           | 11.8  |    |
| 5+70           | 17.5  |    |
| 5+80           | 23.9  |    |
| 5+90           | 29.0  |    |
| 6+00           | 29.1  |    |
| 6+10           | 30.6  |    |
| 6+20           | 32.4  |    |
| 6+30           | 33.4  |    |
| 6+40           | 37.2  |    |
| 6+50           | 38.3  |    |
| 6+60           | 37.8  |    |
| 6+70           | 42.7  | ND |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |

**COMMENTS:**

**SIGNED:** D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - END OF SHIFT**

**DAILY QC RESULTS**

DATE: 9/7/12                      SHIFT NO. 1                      INSPECTOR: D. Guy

| STATION<br>NO. | DEPTH |
|----------------|-------|
| 5+80           | 0.0   |
| 5+90           | 4.8   |
| 6+00           | 20.0  |
| 6+10           | 19.9  |
| 6+20           | 23.6  |
| 6+30           | 24.4  |
| 6+40           | 28.0  |
| 6+50           | 27.7  |
| 6+60           | 28.9  |
| 6+70           | 34.9  |
| 6+80           | 37.5  |
| 6+90           | 40.3  |
| 7+00           | 40.0  |
| 7+10           | 42.8  |
| 7+20           | 43.0  |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |

ND

COMMENTS:

SIGNED: D.Guy  
CONTRACTOR'S QC



Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**SOIL-BENTONITE BACKFILL**

**DAILY QC RESULTS**

DATE: 9/7/12

SHIFT NO. I

INSPECTOR: D. Guy

| STATION | TIME  | RESULT | REQUIREMENT                        |
|---------|-------|--------|------------------------------------|
|         | 13:00 | 3.5    | 3" TO 6"<br>(Prior to Backfilling) |
|         | 13:30 | 3      |                                    |
|         |       |        |                                    |

**DENSITY** PRIOR TO BACKFILLING - TWICE DAILY

| STATION | TIME  | RESULT |                                             |
|---------|-------|--------|---------------------------------------------|
|         | 13:10 | 118    | 110-125 pcf<br>20 PCF>Slurry Unit<br>Weight |
|         | 13:45 | 120    |                                             |
|         |       |        |                                             |

**PERMEABILITY** (Laboratory) EVERY 300 CY OF BACKFILL

| STATION | SAMPLE NO. |                             |
|---------|------------|-----------------------------|
|         |            | < 1X10 <sup>-7</sup> CM/SEC |
|         |            |                             |

| STATION | SAMPLE NO. |                  |
|---------|------------|------------------|
|         |            | 30% - 40%%< #200 |
|         |            |                  |

| STATION | SAMPLE NO. |                  |
|---------|------------|------------------|
|         |            | 30% - 40%%< #200 |

Shepley's Hill Landfill Barrier wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## BENTONITE SLURRY

### DAILY QC RESULTS

DATE: 9/7/12

SHIFT NO. 1

INSPECTOR: D. Guy

|         |       | <u>VISCOSITY</u>     | <u>TWICE DAILY</u> |         |                                      |
|---------|-------|----------------------|--------------------|---------|--------------------------------------|
|         | TIME  |                      | RESULT             | SECONDS | REQUIREMENT                          |
| Initial | 11:26 | 5+50 @ 25'           | 42.4               |         | >40                                  |
|         |       |                      |                    |         |                                      |
| Trench  | 12:40 |                      | 53.6               |         | >40                                  |
|         | 14:30 |                      | 54.9               |         |                                      |
|         |       |                      |                    |         |                                      |
|         |       | <u>DENSITY:</u>      | <u>TWICE DAILY</u> |         |                                      |
|         | TIME: |                      | RESULT:            | PCF     |                                      |
| Initial | 11:30 |                      | 64                 |         | >63                                  |
|         |       |                      |                    |         |                                      |
| Trench  | 12:45 |                      | 88                 |         | 64 TO 90                             |
|         | 14:34 |                      | 91                 |         | (AT LEAST 20 PCF<br>LIGHTER THAN BF) |
|         |       |                      |                    |         |                                      |
|         |       | <u>FILTRATE LOSS</u> | <u>TWICE DAILY</u> |         |                                      |
|         | TIME: |                      | RESULT:            | CC      |                                      |
| Initial | 12:00 |                      | 16.8               |         | <25 IN 30 MINS.                      |
|         |       |                      |                    |         |                                      |
| Trench  | 13:16 |                      | 25.5               |         | <25 IN 30 MINS.                      |
|         | 15:04 |                      | 26                 |         |                                      |
|         |       |                      |                    |         |                                      |
|         |       | <u>pH</u>            | <u>TWICE DAILY</u> |         |                                      |
|         | TIME: |                      | RESULT:            |         |                                      |
| Initial | 11:34 |                      | 7                  |         | 7-10                                 |
|         |       |                      |                    |         |                                      |

#### COMMENTS / SPECIAL EVENTS:

Worked Short Shift

SIGNED: \_\_\_\_\_ D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - START OF SHIFT**

**DAILY QC RESULTS**

**DATE:** 9/10/12

**SHIFT NO.** 1

**INSPECTOR:** D. Guy

| STATION<br>NO. | DEPTH |    |
|----------------|-------|----|
| 5+80           | 0.0   |    |
| 5+90           | 12.5  |    |
| 6+00           | 23.6  |    |
| 6+10           | 21.7  |    |
| 6+20           | 23.7  |    |
| 6+30           | 24.4  |    |
| 6+40           | 28.4  |    |
| 6+50           | 28.1  |    |
| 6+60           | 30.1  |    |
| 6+70           | 36.6  |    |
| 6+80           | 38.4  |    |
| 6+90           | 40.5  |    |
| 7+00           | 40.0  |    |
| 7+10           | 42.8  |    |
| 7+20           | 42.9  | ND |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |

**COMMENTS:**

**SIGNED:** D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - END OF SHIFT**

**DAILY QC RESULTS**

DATE: 9/10/12                      SHIFT NO. 1                      INSPECTOR: D. Guy

| STATION NO. | DEPTH |    |
|-------------|-------|----|
| 6+60        | 0.0   |    |
| 6+70        | 12.4  |    |
| 6+80        | 18.4  |    |
| 6+90        | 24.5  |    |
| 7+00        | 25.8  |    |
| 7+10        | 27.9  |    |
| 7+20        | 27.2  |    |
| 7+30        | 31.1  |    |
| 7+40        | 34.1  |    |
| 7+50        | 35.2  |    |
| 7+60        | 37.5  |    |
| 7+70        | 38.0  |    |
| 7+80        | 38.6  |    |
| 7+90        | 32.2  | ND |
| 8+00        | 11.0  | ND |
|             |       |    |
|             |       |    |
|             |       |    |
|             |       |    |
|             |       |    |
|             |       |    |
|             |       |    |
|             |       |    |

COMMENTS:

SIGNED: D.Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## SOIL-BENTONITE BACKFILL

### DAILY QC RESULTS

DATE: 9/10/12

SHIFT NO. 1

INSPECTOR: D. Guy

| SLUMP   | 1 per Batch                        |        | REQUIREMENT                        |
|---------|------------------------------------|--------|------------------------------------|
| STATION | TIME                               | RESULT | 3" TO 6"<br>(Prior to Backfilling) |
|         | 11:00                              | 3      |                                    |
|         | 13:13                              | 3      |                                    |
|         | 15:12                              | 3      |                                    |
| DENSITY | PRIOR TO BACKFILLING - TWICE DAILY |        |                                    |

| STATION      | TIME                                  | RESULT | 110-125 pcf<br>20 PCF>Slurry Unit<br>Weight |
|--------------|---------------------------------------|--------|---------------------------------------------|
|              | 11:14                                 | 119.5  |                                             |
|              | 13:45                                 | 119    |                                             |
|              | 15:32                                 | 119.5  |                                             |
| PERMEABILITY | (Laboratory) EVERY 300 CY OF BACKFILL |        |                                             |

| STATION | SAMPLE NO. | <1X10 <sup>-7</sup> CM/SEC |
|---------|------------|----------------------------|
|         |            |                            |

| GRADATION | (Laboratory) EVERY 300 CY OF BACKFILL |  | 30% - 40%%<#200 |
|-----------|---------------------------------------|--|-----------------|
| STATION   | SAMPLE NO.                            |  |                 |
|           |                                       |  |                 |

| FINES   | (Laboratory) EVERY 100 CY OF BACKFILL |  | 30% - 40%%<#200 |
|---------|---------------------------------------|--|-----------------|
| STATION | SAMPLE NO.                            |  |                 |
|         |                                       |  |                 |

Shepley's Hill Landfill Barrier wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## BENTONITE SLURRY

### DAILY QC RESULTS

DATE: 9/10/12

SHIFT NO. 1

INSPECTOR: D. Guy

|         |       | <u>VISCOSITY</u>     | <u>TWICE DAILY</u> |         |                  |
|---------|-------|----------------------|--------------------|---------|------------------|
|         | TIME  |                      | RESULT             | SECONDS | REQUIREMENT      |
| Initial | 9:55  |                      | 40.1               |         | >40              |
|         | 13:35 |                      | 39.6               |         |                  |
| Trench  | 10:30 | 6+80 @ 30'           | 49.7               |         | >40              |
|         | 12:05 | 6+40 @ 15'           | 51.2               |         |                  |
|         | 14:10 | 7+40 @ 15'           | 59                 |         |                  |
|         |       | <u>DENSITY:</u>      | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            | PCF     |                  |
| Initial | 10:00 |                      | 64                 |         | >63              |
|         | 13:38 |                      | 64                 |         |                  |
| Trench  | 10:34 |                      | 88                 |         | 64 TO 90         |
|         | 12:10 |                      | 88.2               |         | (AT LEAST 20 PCF |
|         | 14:16 |                      | 96.0               |         | LIGHTER THAN BF) |
|         |       | <u>FILTRATE LOSS</u> | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            | CC      |                  |
| Initial | 10:34 |                      | 16.7               |         | <25 IN 30 MINS.  |
|         | 14:08 |                      | 16.8               |         |                  |
| Trench  | 11:05 |                      | 25.4               |         | <25 IN 30 MINS.  |
|         | 12:43 |                      | 25.4               |         |                  |
|         | 14:49 |                      | 26.2               |         |                  |
|         |       | <u>pH</u>            | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            |         |                  |
| Initial | 10:02 |                      | 7                  |         | 7-10             |
|         | 13:45 |                      | 7                  |         |                  |

COMMENTS / SPECIAL EVENTS:

SIGNED: \_\_\_\_\_ D. Guy  
CONTRACTOR'S QC





100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - START OF SHIFT**

**DAILY QC RESULTS**

**DATE:** 9/11/12

**SHIFT NO.** 1

**INSPECTOR:** D. Guy

| STATION<br>NO. | DEPTH |
|----------------|-------|
| 6+60           | 0.0   |
| 6+70           | 13.8  |
| 6+80           | 19.4  |
| 6+90           | 27.0  |
| 7+00           | 26.0  |
| 7+10           | 29.8  |
| 7+20           | 28.0  |
| 7+30           | 30.9  |
| 7+40           | 36.8  |
| 7+50           | 36.4  |
| 7+60           | 38.0  |
| 7+70           | 38.2  |
| 7+80           | 38.4  |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |

**COMMENTS:**

**SIGNED:** D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - END OF SHIFT**

**DAILY QC RESULTS**

DATE: 9/11/12                      SHIFT NO. 1                      INSPECTOR: D. Guy

| STATION NO. | DEPTH |    |
|-------------|-------|----|
| 7+00        | 0.0   |    |
| 7+10        | 4.0   |    |
| 7+20        | 14.2  |    |
| 7+30        | 22.5  |    |
| 7+40        | 22.7  |    |
| 7+50        | 25.7  |    |
| 7+60        | 28.3  |    |
| 7+70        | 29.2  |    |
| 7+80        | 30.3  |    |
| 7+90        | 34.0  |    |
| 8+00        | 34.5  |    |
| 8+10        | 37.0  |    |
| 8+20        | 39.1  |    |
| 8+30        |       | ND |
| 8+40        | 35.2  | ND |
|             |       |    |
|             |       |    |
|             |       |    |
|             |       |    |
|             |       |    |
|             |       |    |
|             |       |    |
|             |       |    |
|             |       |    |

COMMENTS:

SIGNED: D.Guy  
CONTRACTOR'S QC

# MORETRENCH

100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## SOIL-BENTONITE BACKFILL

### DAILY QC RESULTS

DATE: 9/11/12

SHIFT NO. 1

INSPECTOR: D. Guy

#### SLUMP

1 per Batch

#### REQUIREMENT

STATION

TIME

RESULT

|  |
|--|
|  |
|  |
|  |

|       |
|-------|
| 10:15 |
| 13:00 |
| 15:10 |

|   |
|---|
| 3 |
| 3 |
| 3 |

INCHES

3" TO 6"  
(Prior to Backfilling)

#### DENSITY

PRIOR TO BACKFILLING - TWICE DAILY

STATION

TIME

RESULT

|  |
|--|
|  |
|  |

|       |
|-------|
| 10:45 |
| 13:32 |
| 15:34 |

|       |
|-------|
| 118   |
| 119   |
| 118.5 |

PCF

110-125 pcf  
20 PCF > Slurry Unit  
Weight

#### PERMEABILITY

(Laboratory) EVERY 300 CY OF BACKFILL

STATION

SAMPLE NO.

|  |
|--|
|  |
|  |

|  |
|--|
|  |
|  |

<  $1 \times 10^{-7}$  CM/SEC

#### GRADATION

(Laboratory) EVERY 300 CY OF BACKFILL

STATION

SAMPLE NO.

|  |
|--|
|  |
|  |

|  |
|--|
|  |
|  |

30% - 40% < #200

#### FINES

(Laboratory) EVERY 100 CY OF BACKFILL

STATION

SAMPLE NO.

|  |
|--|
|  |
|--|

|  |
|--|
|  |
|--|

30% - 40% < #200

Shepley's Hill Landfill Barrier wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## BENTONITE SLURRY

### DAILY QC RESULTS

DATE: 9/11/12

SHIFT NO. 1

INSPECTOR: D. Guy

|         |       | <u>VISCOSITY</u>     | <u>TWICE DAILY</u> |         |                                      |
|---------|-------|----------------------|--------------------|---------|--------------------------------------|
|         | TIME  |                      | RESULT             | SECONDS | REQUIREMENT                          |
| Initial | 12:35 |                      | 40.3               |         | >40                                  |
|         |       |                      |                    |         |                                      |
| Trench  | 11:15 | 7+20 @ 15'           | 53.6               |         | >40                                  |
|         | 14:30 | 7+70 @ 30'           | 55.8               |         |                                      |
|         |       |                      |                    |         |                                      |
|         |       | <u>DENSITY:</u>      | <u>TWICE DAILY</u> |         |                                      |
|         | TIME: |                      | RESULT:            | PCF     |                                      |
| Initial | 12:40 |                      | 64                 |         | >63                                  |
|         |       |                      |                    |         |                                      |
| Trench  | 11:21 |                      | 89                 |         | 64 TO 90                             |
|         | 14:33 |                      | 91                 |         | (AT LEAST 20 PCF<br>LIGHTER THAN BF) |
|         |       |                      |                    |         |                                      |
|         |       | <u>FILTRATE LOSS</u> | <u>TWICE DAILY</u> |         |                                      |
|         | TIME: |                      | RESULT:            | CC      |                                      |
| Initial | 13:12 |                      | 17.1               |         | <25 IN 30 MINS.                      |
|         |       |                      |                    |         |                                      |
| Trench  | 11:53 |                      | 25.4               |         | <25 IN 30 MINS.                      |
|         | 15:04 |                      | 25.6               |         |                                      |
|         |       |                      |                    |         |                                      |
|         |       | <u>pH</u>            | <u>TWICE DAILY</u> |         |                                      |
|         | TIME: |                      | RESULT:            |         |                                      |
| Initial | 12:43 |                      | 7                  |         | 7-10                                 |
|         |       |                      |                    |         |                                      |

#### COMMENTS / SPECIAL EVENTS:

Short Shift

SIGNED: \_\_\_\_\_ D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## SOIL-BENTONITE BACKFILL

### DAILY QC RESULTS

DATE: 9/12/12

SHIFT NO. 1

INSPECTOR: D. Guy

| STATION | TIME | RESULT                             | REQUIREMENT                        |
|---------|------|------------------------------------|------------------------------------|
|         | 1:00 | 3                                  | 3" TO 6"<br>(Prior to Backfilling) |
|         | 1:30 | 3                                  |                                    |
|         |      |                                    |                                    |
| SLUMP   |      | 1 per Batch                        |                                    |
| DENSITY |      | PRIOR TO BACKFILLING - TWICE DAILY |                                    |

| STATION      | TIME | RESULT                                | REQUIREMENT                                   |
|--------------|------|---------------------------------------|-----------------------------------------------|
|              | 1:18 | 117.5                                 | 110-125 pcf<br>20 PCF > Slurry Unit<br>Weight |
|              | 1:35 | 118.5                                 |                                               |
|              |      |                                       |                                               |
| PERMEABILITY |      | (Laboratory) EVERY 300 CY OF BACKFILL |                                               |

| STATION | SAMPLE NO. | REQUIREMENT                 |
|---------|------------|-----------------------------|
|         |            | < $1 \times 10^{-7}$ CM/SEC |
|         |            |                             |

| STATION | SAMPLE NO. | REQUIREMENT      |
|---------|------------|------------------|
|         |            | 30% - 40% < #200 |
|         |            |                  |

| STATION | SAMPLE NO. | REQUIREMENT      |
|---------|------------|------------------|
|         |            | 30% - 40% < #200 |
|         |            |                  |



**BACKFILL SLOPE - START OF SHIFT**

## DAILY QC RESULTS

**INSPECTOR: D. Guy**

**COMMENTS:**

**SIGNED:** D. Guy  
CONTRACTOR'S QC



### BACKFILL SLOPE - END OF SHIFT

## DAILY QC RESULTS

**DATE: 9/13/12**

**SHIFT NO. I**

**INSPECTOR: D. Guy**

[illegible]

**COMMENTS:**

**SIGNED:** D.Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## SOIL-BENTONITE BACKFILL

### DAILY QC RESULTS

DATE: 9/13/12

SHIFT NO. 1

INSPECTOR: D. Guy

#### SLUMP

1 per Batch

REQUIREMENT

STATION

TIME

RESULT

|  |
|--|
|  |
|  |
|  |

|       |
|-------|
| 9:00  |
| 11:30 |
| 2:13  |

|     |
|-----|
| 3.5 |
| 3   |
| 3   |

INCHES

3" TO 6"  
(Prior to Backfilling)

#### DENSITY

PRIOR TO BACKFILLING - TWICE DAILY

STATION

TIME

RESULT

|  |
|--|
|  |
|  |

|       |
|-------|
| 9:20  |
| 11:35 |
| 2:35  |

|       |
|-------|
| 118.5 |
| 118   |
| 117   |

PCF

110-125 pcf  
20 PCF > Slurry Unit  
Weight

#### PERMEABILITY

(Laboratory) EVERY 300 CY OF BACKFILL

STATION

SAMPLE NO.

|  |
|--|
|  |
|  |

|  |
|--|
|  |
|  |

<  $1 \times 10^{-7}$  CM/SEC

#### GRADATION

(Laboratory) EVERY 300 CY OF BACKFILL

STATION

SAMPLE NO.

|  |
|--|
|  |
|  |

|  |
|--|
|  |
|  |

30% - 40% < #200

#### FINES

(Laboratory) EVERY 100 CY OF BACKFILL

STATION

SAMPLE NO.

|  |
|--|
|  |
|--|

|  |
|--|
|  |
|--|

30% - 40% < #200



100 Stickle Avenue, Rockaway, NJ 07866-3146

## Shepley's Hill Landfill Barrier wall Soil-Bentonite Wall Ft. Devens, MA

## BENTONITE SLURRY

## DAILY QC RESULTS

**DATE: 9/13/12**

**SHIFT NO. I**

**INSPECTOR: D. Guy**

|         |             |                      |                    |         |                  |
|---------|-------------|----------------------|--------------------|---------|------------------|
|         |             | <u>VISCOSITY</u>     | <u>TWICE DAILY</u> |         |                  |
|         | TIME        |                      | RESULT             |         | REQUIREMENT      |
| Initial | <div></div> |                      | <div></div>        | SECONDS | >40              |
|         | <div></div> |                      | <div></div>        |         |                  |
| Trench  | <div></div> |                      | <div></div>        |         | >40              |
|         | <div></div> |                      | <div></div>        |         |                  |
|         | <div></div> |                      | <div></div>        |         |                  |
|         | <div></div> |                      | <div></div>        |         |                  |
|         |             | <u>DENSITY:</u>      | <u>TWICE DAILY</u> |         |                  |
|         | TIME:       |                      | RESULT:            |         |                  |
| Initial | <div></div> |                      | <div></div>        | PCF     | >63              |
|         | <div></div> |                      | <div></div>        |         |                  |
| Trench  | <div></div> |                      | <div></div>        |         | 64 TO 90         |
|         | <div></div> |                      | <div></div>        |         | (AT LEAST 20 PCF |
|         | <div></div> |                      | <div></div>        |         | LIGHTER THAN BF) |
|         | <div></div> |                      | <div></div>        |         |                  |
|         |             | <u>FILTRATE LOSS</u> | <u>TWICE DAILY</u> |         |                  |
|         | TIME:       |                      | RESULT:            |         |                  |
| Initial | <div></div> |                      | <div></div>        | CC      | <25 IN 30 MINS.  |
|         | <div></div> |                      | <div></div>        |         |                  |
| Trench  | <div></div> |                      | <div></div>        |         | <25 IN 30 MINS.  |
|         | <div></div> |                      | <div></div>        |         |                  |
|         | <div></div> |                      | <div></div>        |         |                  |
|         | <div></div> |                      | <div></div>        |         |                  |
|         |             | <u>pH</u>            | <u>TWICE DAILY</u> |         |                  |
|         | TIME:       |                      | RESULT:            |         |                  |
| Initial | <div></div> |                      | <div></div>        |         | 7-10             |
|         | <div></div> |                      | <div></div>        |         |                  |

**COMMENTS / SPECIAL EVENTS:**

**Excavating Complete/ Backfilling Complete by end of Day**

**SIGNED: \_\_\_\_\_ D. Guy**  
**CONTRACTOR'S QC**



## **APPENDIX F**

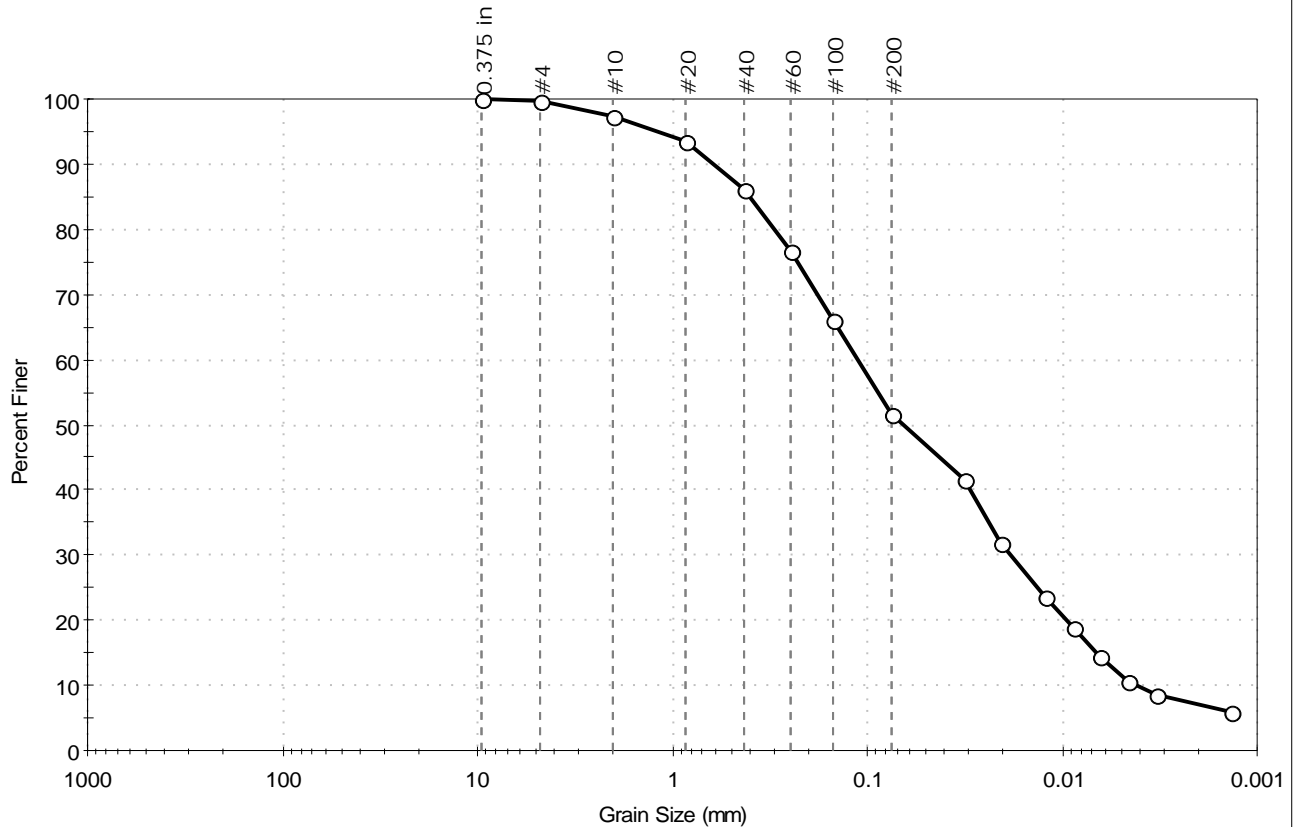
### **Results of Off-site Laboratory Backfill Quality Control Testing**

**(See CD Included Separately)**



|                                                                  |                       |                 |
|------------------------------------------------------------------|-----------------------|-----------------|
| Client: Moretrench American Corp.                                | Project No: GTX-11659 |                 |
| Project: Shepley Landfill                                        |                       |                 |
| Location: Devens, MA                                             |                       |                 |
| Boring ID: ---                                                   | Sample Type: bag      | Tested By: jbr  |
| Sample ID: BFM-1                                                 | Test Date: 08/20/12   | Checked By: jdt |
| Depth: ---                                                       | Test Id: 247751       |                 |
| Test Comment: ---                                                |                       |                 |
| Sample Description: Moist, olive sandy silt (soil-bentonite mix) |                       |                 |
| Sample Comment: ---                                              |                       |                 |

## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
|----------|----------|--------|--------------------|
| ---      | 0.4      | 47.9   | 51.7               |

| Sieve Name | Sieve Size, mm     | Percent Finer | Spec. Percent | Complies |
|------------|--------------------|---------------|---------------|----------|
| 0.375 in   | 9.50               | 100           |               |          |
| #4         | 4.75               | 100           |               |          |
| #10        | 2.00               | 97            |               |          |
| #20        | 0.85               | 93            |               |          |
| #40        | 0.42               | 86            |               |          |
| #60        | 0.25               | 77            |               |          |
| #100       | 0.15               | 66            |               |          |
| #200       | 0.075              | 52            |               |          |
| ---        | Particle Size (mm) | Percent Finer | Spec. Percent | Complies |
| ---        | 0.0315             | 42            |               |          |
| ---        | 0.0205             | 32            |               |          |
| ---        | 0.0123             | 23            |               |          |
| ---        | 0.0089             | 19            |               |          |
| ---        | 0.0064             | 14            |               |          |
| ---        | 0.0046             | 10            |               |          |
| ---        | 0.0033             | 9             |               |          |
| ---        | 0.0013             | 6             |               |          |

| Coefficients                |                             |
|-----------------------------|-----------------------------|
| D <sub>85</sub> = 0.4008 mm | D <sub>30</sub> = 0.0183 mm |
| D <sub>60</sub> = 0.1121 mm | D <sub>15</sub> = 0.0066 mm |
| D <sub>50</sub> = 0.0649 mm | D <sub>10</sub> = 0.0042 mm |
| C <sub>u</sub> = N/A        | C <sub>c</sub> = N/A        |

| Classification |                       |
|----------------|-----------------------|
| ASTM           | N/A                   |
| AASHTO         | Silty Soils (A-4 (0)) |

| Sample/Test Description    |       |
|----------------------------|-------|
| Sand/Gravel Particle Shape | : --- |
| Sand/Gravel Hardness       | : --- |



|                     |                                              |             |     |
|---------------------|----------------------------------------------|-------------|-----|
| Client:             | Moretrench American Corp.                    |             |     |
| Project Name:       | Shepley Landfill                             |             |     |
| Project Location:   | Devens, MA                                   |             |     |
| GTX #:              | 11659                                        |             |     |
| Start Date:         | 8/21/2012                                    | Tested By:  | ema |
| End Date:           | 8/28/2012                                    | Checked By: | mpd |
| Boring #:           | ---                                          |             |     |
| Sample #:           | BFM-1                                        |             |     |
| Depth:              | ----                                         |             |     |
| Visual Description: | Moist, olive sandy silt (soil-bentonite mix) |             |     |

## Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter by ASTM D 5084 Constant Volume

|                     |                                                                                                         |                 |                          |
|---------------------|---------------------------------------------------------------------------------------------------------|-----------------|--------------------------|
| Sample Type:        | Remolded                                                                                                | Permeant Fluid: | De-aired Distilled water |
| Orientation:        | Vertical                                                                                                | Cell #:         | 12/3/2                   |
| Sample Preparation: | Target Compaction: Moderate effort at as prepared Moisture Content . Trimmings moisture content = 28.8% |                 |                          |

| Parameter               | Initial | Final |
|-------------------------|---------|-------|
| Height, in              | 2.42    | 2.18  |
| Diameter, in            | 2.85    | 2.75  |
| Area, in <sup>2</sup>   | 6.38    | 5.94  |
| Volume, in <sup>3</sup> | 15.4    | 12.9  |
| Mass, g                 | 500     | 467   |
| Bulk Density, pcf       | 123     | 137   |
| Moisture Content, %     | 29.7    | 21.3  |
| Dry Density, pcf        | 94.9    | 113   |
| Degree of Saturation, % |         | 100   |

### B COEFFICIENT DETERMINATION

|                       |       |                          |       |
|-----------------------|-------|--------------------------|-------|
| Cell Pressure, psi:   | 95.2  | Pressure Increment, psi: | 5.00  |
| Sample Pressure, psi: | 90.14 | B Coefficient:           | 0.979 |

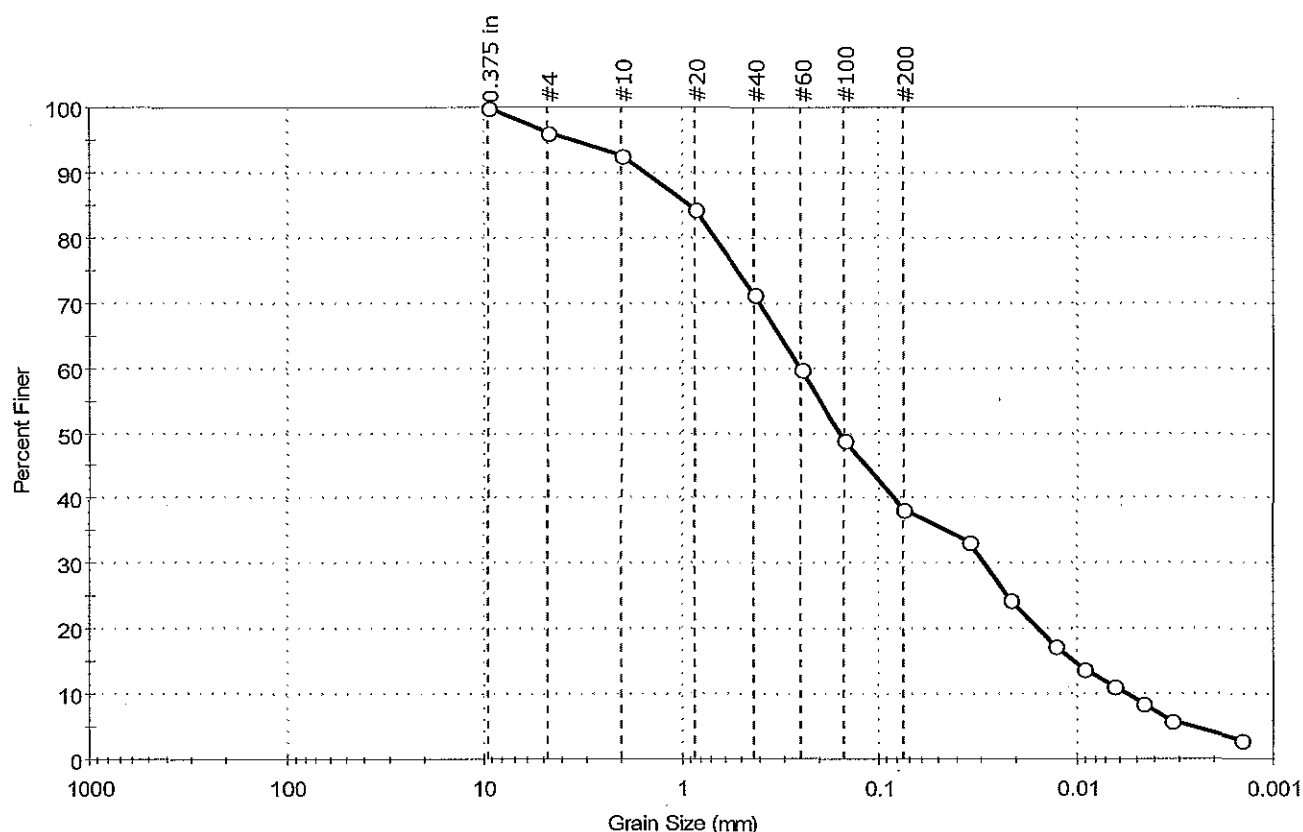
### FLOW DATA

| Date | Trial # | Pressure, psi |        | Manometer Readings |                |                                | Elapsed Time, sec | Gradient | Permeability K, cm/sec | Temp, °C | R <sub>t</sub> | Permeability K @ 20 °C, cm/sec |
|------|---------|---------------|--------|--------------------|----------------|--------------------------------|-------------------|----------|------------------------|----------|----------------|--------------------------------|
|      |         | Cell          | Sample | Z <sub>1</sub>     | Z <sub>2</sub> | Z <sub>1</sub> -Z <sub>2</sub> |                   |          |                        |          |                |                                |
| 8/27 | 2       | 90            | 85     | 12.0               | 11.8           | 0.2                            | 51                | 27.3     | 1.2E-07                | 20       | 1.000          | 1.2E-07                        |
| 8/27 | 3       | 90            | 85     | 12.0               | 11.8           | 0.2                            | 51                | 27.3     | 1.2E-07                | 20       | 1.000          | 1.2E-07                        |
| 8/27 | 4       | 90            | 85     | 12.0               | 11.8           | 0.2                            | 51                | 27.3     | 1.2E-07                | 20       | 1.000          | 1.2E-07                        |
| 8/27 | 5       | 90            | 85     | 12.0               | 11.8           | 0.2                            | 51                | 27.3     | 1.2E-07                | 20       | 1.000          | 1.2E-07                        |

**PERMEABILITY AT 20° C:  $1.2 \times 10^{-7}$  cm/sec (@ 5 psi effective stress)**

|                                                       |                       |
|-------------------------------------------------------|-----------------------|
| Client: Moretrench American Corp.                     | Project No: GTX-11659 |
| Project: Shepley Landfill                             |                       |
| Location: Devens, MA                                  |                       |
| Boring ID: ---                                        | Sample Type: bag      |
| Sample ID: BFM-3                                      | Test Date: 08/22/12   |
| Depth: ---                                            | Test Id: 247837       |
| Test Comment: ---                                     | Tested By: jbr        |
| Sample Description: Moist, yellowish brown silty sand | Checked By: mpd       |
| Sample Comment: ---                                   |                       |

## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
|----------|----------|--------|--------------------|
| —        | 3.9      | 57.8   | 38.3               |

| Sieve Name | Sieve Size, mm     | Percent Finer | Spec. Percent | Complies |
|------------|--------------------|---------------|---------------|----------|
| 0.375 in   | 9.50               | 100           |               |          |
| #4         | 4.75               | 96            |               |          |
| #10        | 2.00               | 93            |               |          |
| #20        | 0.85               | 84            |               |          |
| #40        | 0.42               | 71            |               |          |
| #60        | 0.25               | 60            |               |          |
| #100       | 0.15               | 49            |               |          |
| #200       | 0.075              | 38            |               |          |
| ---        | Particle Size (mm) | Percent Finer | Spec. Percent | Complies |
| ---        | 0.0347             | 33            |               |          |
| ---        | 0.0220             | 25            |               |          |
| ---        | 0.0129             | 17            |               |          |
| ---        | 0.0092             | 14            |               |          |
| ---        | 0.0065             | 11            |               |          |
| ---        | 0.0047             | 8             |               |          |
| ---        | 0.0033             | 6             |               |          |
| ---        | 0.0015             | 3             |               |          |

| Coefficients                |                             |
|-----------------------------|-----------------------------|
| D <sub>85</sub> = 0.9194 mm | D <sub>30</sub> = 0.0293 mm |
| D <sub>60</sub> = 0.2518 mm | D <sub>15</sub> = 0.0103 mm |
| D <sub>50</sub> = 0.1568 mm | D <sub>10</sub> = 0.0057 mm |
| C <sub>u</sub> = N/A        | C <sub>c</sub> = N/A        |

| Classification |                       |
|----------------|-----------------------|
| ASTM           | N/A                   |
| AASHTO         | Silty Soils (A-4 (0)) |

| Sample/Test Description              |
|--------------------------------------|
| Sand/Gravel Particle Shape : ROUNDED |
| Sand/Gravel Hardness : HARD          |



|                     |                                                      |             |     |
|---------------------|------------------------------------------------------|-------------|-----|
| Client:             | Moretrench American Corp.                            |             |     |
| Project Name:       | Shepley Landfill                                     |             |     |
| Project Location:   | Devens, MA                                           |             |     |
| GTX #:              | 11659                                                |             |     |
| Start Date:         | 8/24/2012                                            | Tested By:  | ema |
| End Date:           | 8/28/2012                                            | Checked By: | mpd |
| Boring #:           | ---                                                  |             |     |
| Sample #:           | BFM-3                                                |             |     |
| Depth:              | ---                                                  |             |     |
| Visual Description: | Wet, yellowish brown silty sand (soil-bentonite mix) |             |     |

## Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter by ASTM D 5084 Constant Volume

|                     |                                                                                                         |                 |                          |
|---------------------|---------------------------------------------------------------------------------------------------------|-----------------|--------------------------|
| Sample Type:        | Remolded                                                                                                | Permeant Fluid: | De-aired Distilled water |
| Orientation:        | Vertical                                                                                                | Cell #:         | 19/4/5                   |
| Sample Preparation: | Target Compaction: Moderate effort at as prepared Moisture Content . Trimmings moisture content = 20.6% |                 |                          |

| Parameter               | Initial | Final |
|-------------------------|---------|-------|
| Height, in              | 2.61    | 2.20  |
| Diameter, in            | 2.85    | 2.80  |
| Area, in <sup>2</sup>   | 6.38    | 6.16  |
| Volume, in <sup>3</sup> | 16.7    | 13.5  |
| Mass, g                 | 494     | 468   |
| Bulk Density, pcf       | 113     | 131   |
| Moisture Content, %     | 27.7    | 20.9  |
| Dry Density, pcf        | 88.3    | 109   |
| Degree of Saturation, % | ---     | 99    |

### B COEFFICIENT DETERMINATION

|                       |       |                          |       |
|-----------------------|-------|--------------------------|-------|
| Cell Pressure, psi:   | 95.05 | Pressure Increment, psi: | 5.01  |
| Sample Pressure, psi: | 9.171 | B Coefficient:           | 0.984 |

### FLOW DATA

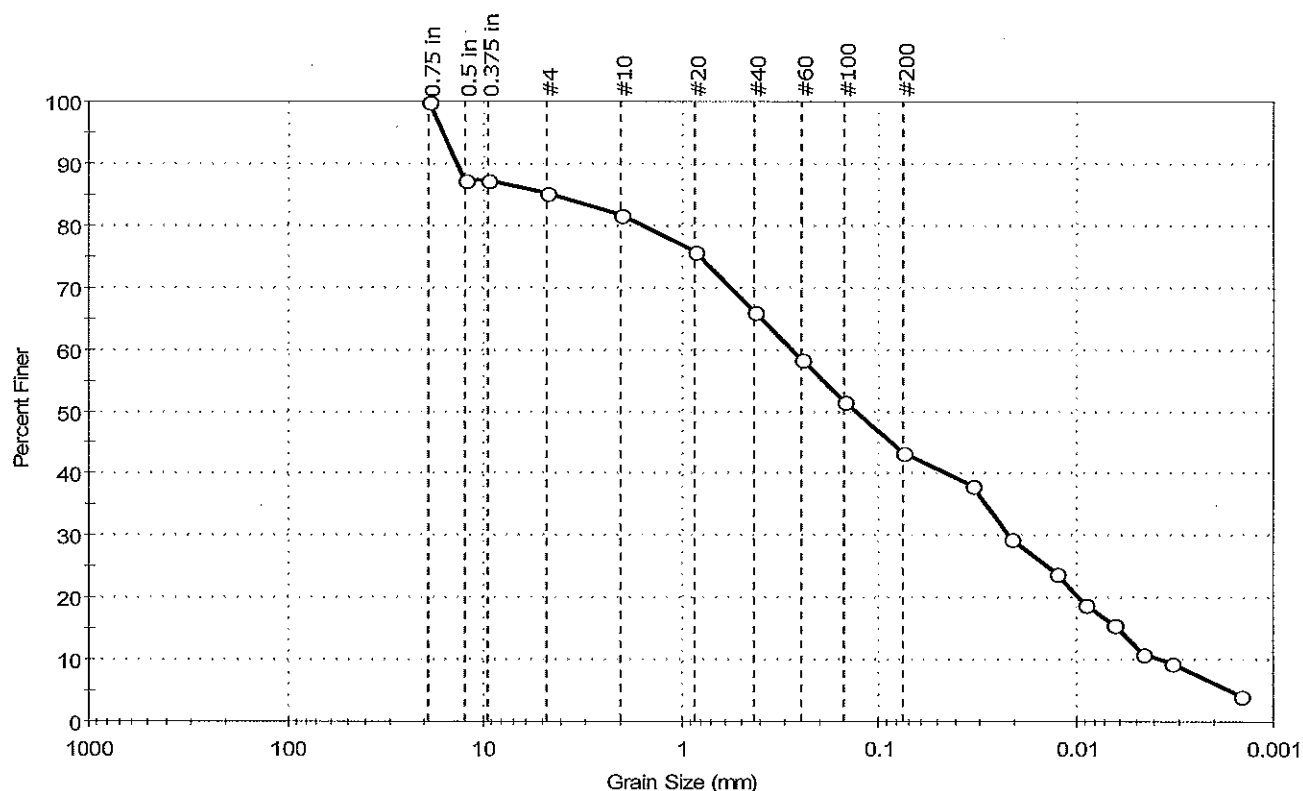
| Date | Trial # | Pressure, psi |        | Manometer Readings |                |                                | Elapsed Time, sec | Gradient | Permeability K, cm/sec | Temp, °C | R <sub>t</sub> | Permeability K @ 20 °C, cm/sec |
|------|---------|---------------|--------|--------------------|----------------|--------------------------------|-------------------|----------|------------------------|----------|----------------|--------------------------------|
|      |         | Cell          | Sample | Z <sub>1</sub>     | Z <sub>2</sub> | Z <sub>1</sub> -Z <sub>2</sub> |                   |          |                        |          |                |                                |
| 8/27 | 2       | 90            | 85     | 11.0               | 10.9           | 0.1                            | 38                | 24.8     | 8.4E-08                | 20       | 1.000          | 8.4E-08                        |
| 8/27 | 3       | 90            | 85     | 11.0               | 10.9           | 0.1                            | 38                | 24.8     | 8.4E-08                | 20       | 1.000          | 8.4E-08                        |
| 8/27 | 4       | 90            | 85     | 11.0               | 10.9           | 0.1                            | 40                | 24.8     | 8.0E-08                | 20       | 1.000          | 8.0E-08                        |
| 8/27 | 5       | 90            | 85     | 11.0               | 10.9           | 0.1                            | 41                | 24.8     | 7.8E-08                | 20       | 1.000          | 7.8E-08                        |

**PERMEABILITY AT 20° C:  $8.2 \times 10^{-8}$  cm/sec (@ 5 psi effective stress)**



|                                                       |                       |                 |
|-------------------------------------------------------|-----------------------|-----------------|
| Client: Moretrench American Corp.                     | Project No: GTX-11659 |                 |
| Project: Shepley Landfill                             |                       |                 |
| Location: Devens, MA                                  |                       |                 |
| Boring ID: ----                                       | Sample Type: bag      | Tested By: jbr  |
| Sample ID: BFM-6                                      | Test Date: 08/22/12   | Checked By: mpd |
| Depth: ----                                           | Test Id: 247840       |                 |
| Test Comment: ----                                    |                       |                 |
| Sample Description: Moist, yellowish brown silty sand |                       |                 |
| Sample Comment: ----                                  |                       |                 |

## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
|----------|----------|--------|--------------------|
| —        | 14.9     | 41.9   | 43.2               |

| Sieve Name | Sieve Size, mm     | Percent Finer | Spec. Percent | Complies |
|------------|--------------------|---------------|---------------|----------|
| 0.75 in    | 19.00              | 100           |               |          |
| 0.5 in     | 12.50              | 87            |               |          |
| 0.375 in   | 9.50               | 87            |               |          |
| #4         | 4.75               | 85            |               |          |
| #10        | 2.00               | 82            |               |          |
| #20        | 0.85               | 76            |               |          |
| #40        | 0.42               | 66            |               |          |
| #60        | 0.25               | 58            |               |          |
| #100       | 0.15               | 52            |               |          |
| #200       | 0.075              | 43            |               |          |
| ---        | Particle Size (mm) | Percent Finer | Spec. Percent | Complies |
| ---        | 0.0334             | 38            |               |          |
| ---        | 0.0214             | 29            |               |          |
| ---        | 0.0125             | 24            |               |          |
| ---        | 0.0089             | 19            |               |          |
| ---        | 0.0064             | 16            |               |          |
| ---        | 0.0046             | 11            |               |          |
| ---        | 0.0033             | 9             |               |          |
| ---        | 0.0015             | 4             |               |          |

### Coefficients

|                             |                             |
|-----------------------------|-----------------------------|
| D <sub>85</sub> = 4.5862 mm | D <sub>30</sub> = 0.0220 mm |
| D <sub>60</sub> = 0.2796 mm | D <sub>15</sub> = 0.0061 mm |
| D <sub>50</sub> = 0.1306 mm | D <sub>10</sub> = 0.0038 mm |
| C <sub>u</sub> = N/A        | C <sub>c</sub> = N/A        |

### Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

### Sample/Test Description

Sand/Gravel Particle Shape : **ROUNDED**  
 Sand/Gravel Hardness : **HARD**



|                     |                                                      |             |     |
|---------------------|------------------------------------------------------|-------------|-----|
| Client:             | Moretrench American Corp.                            |             |     |
| Project Name:       | Shepley Landfill                                     |             |     |
| Project Location:   | Devens, MA                                           |             |     |
| GTX #:              | 11659                                                |             |     |
| Start Date:         | 8/24/2012                                            | Tested By:  | ema |
| End Date:           | 8/28/2012                                            | Checked By: | mpd |
| Boring #:           | ---                                                  |             |     |
| Sample #:           | BFM-6                                                |             |     |
| Depth:              | ---                                                  |             |     |
| Visual Description: | Wet, yellowish brown silty sand (soil-bentonite mix) |             |     |

## Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter by ASTM D 5084 Constant Volume

|                     |                                                                                                       |                 |                          |
|---------------------|-------------------------------------------------------------------------------------------------------|-----------------|--------------------------|
| Sample Type:        | Remolded                                                                                              | Permeant Fluid: | De-aired Distilled water |
| Orientation:        | Vertical                                                                                              | Cell #:         | 5/2/15                   |
| Sample Preparation: | Target Compaction: Moderate effort at as prepared Moisture Content . Trimmings moisture content = 27% |                 |                          |

| Parameter               | Initial | Final |
|-------------------------|---------|-------|
| Height, in              | 2.38    | 2.36  |
| Diameter, in            | 2.85    | 2.62  |
| Area, in <sup>2</sup>   | 6.38    | 5.39  |
| Volume, in <sup>3</sup> | 15.2    | 12.7  |
| Mass, g                 | 469     | 445   |
| Bulk Density, pcf       | 117     | 133   |
| Moisture Content, %     | 25.5    | 19.1  |
| Dry Density, pcf        | 93.6    | 112   |
| Degree of Saturation, % | ---     | 99    |

### B COEFFICIENT DETERMINATION

|                       |       |                          |      |
|-----------------------|-------|--------------------------|------|
| Cell Pressure, psi:   | 95.11 | Pressure Increment, psi: | 5.03 |
| Sample Pressure, psi: | 90.23 | B Coefficient:           | 1    |

### FLOW DATA

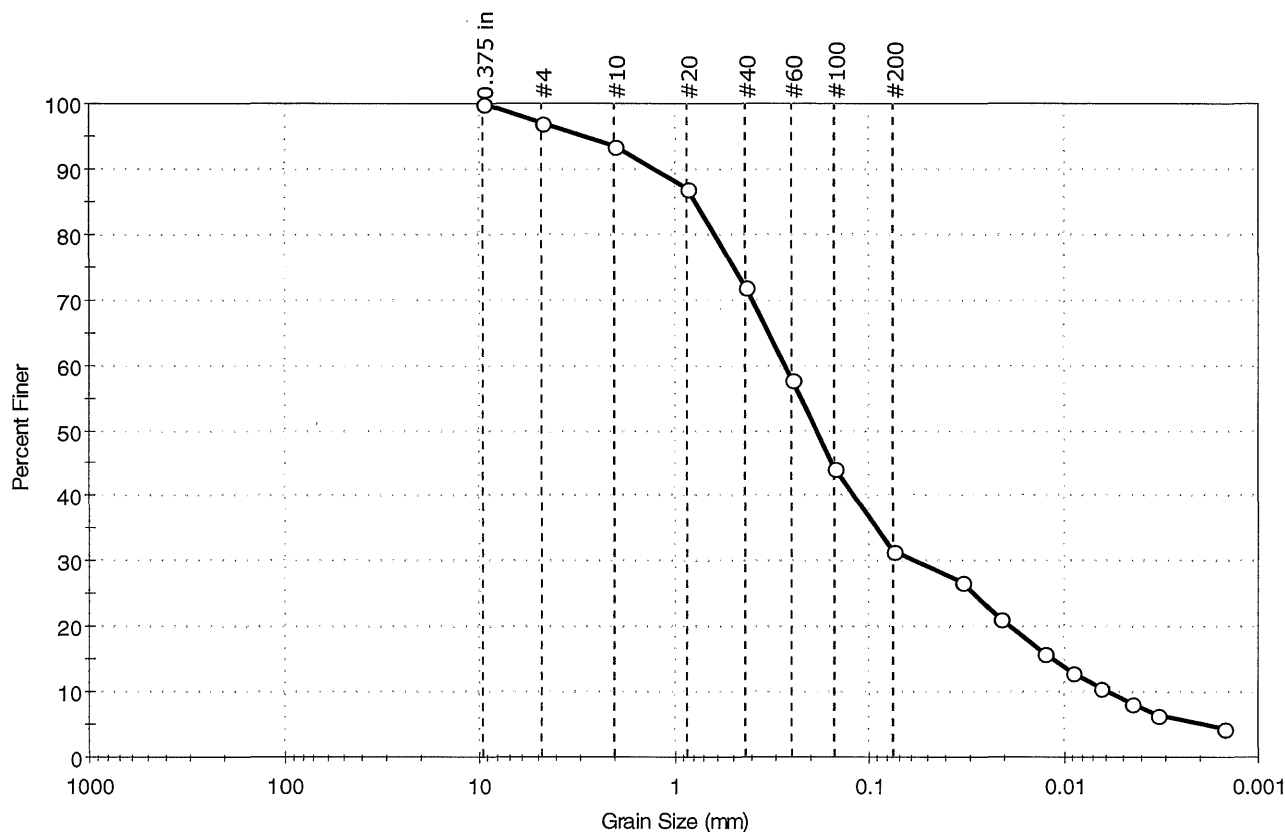
| Date | Trial # | Pressure, psi |        | Manometer Readings |                |                                | Elapsed Time, sec | Gradient | Permeability K, cm/sec | Temp, °C | R <sub>t</sub> | Permeability K @ 20 °C, cm/sec |
|------|---------|---------------|--------|--------------------|----------------|--------------------------------|-------------------|----------|------------------------|----------|----------------|--------------------------------|
|      |         | Cell          | Sample | Z <sub>1</sub>     | Z <sub>2</sub> | Z <sub>1</sub> -Z <sub>2</sub> |                   |          |                        |          |                |                                |
| 8/27 | 1       | 90            | 85     | 11.0               | 10.9           | 0.1                            | 49                | 23.1     | 8.0E-08                | 20       | 1.000          | 8.0E-08                        |
| 8/27 | 2       | 90            | 85     | 11.0               | 10.9           | 0.1                            | 55                | 23.1     | 7.1E-08                | 20       | 1.000          | 7.1E-08                        |
| 8/27 | 3       | 90            | 85     | 11.0               | 10.9           | 0.1                            | 54                | 23.1     | 7.3E-08                | 20       | 1.000          | 7.3E-08                        |
| 8/27 | 4       | 90            | 85     | 11.0               | 10.9           | 0.1                            | 54                | 23.1     | 7.3E-08                | 20       | 1.000          | 7.3E-08                        |

**PERMEABILITY AT 20° C:  $7.4 \times 10^{-8}$  cm/sec (@ 5 psi effective stress)**



|                     |                                               |              |           |
|---------------------|-----------------------------------------------|--------------|-----------|
| Client:             | Moretrench American Corp.                     | Project No:  | GTX-11659 |
| Project:            | Shepley Landfill                              | Tested By:   | jbr       |
| Location:           | Devens, MA                                    | Checked By:  | jdt       |
| Boring ID:          | ---                                           | Sample Type: | bag       |
| Sample ID:          | BFM-9                                         | Test Date:   | 08/28/12  |
| Depth :             | ---                                           | Test Id:     | 248063    |
| Test Comment:       | ---                                           |              |           |
| Sample Description: | Moist, olive clayey sand (soil-bentonite mix) |              |           |
| Sample Comment:     | ---                                           |              |           |

## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
|----------|----------|--------|--------------------|
| ---      | 3.0      | 65.5   | 31.5               |

| Sieve Name | Sieve Size, mm     | Percent Finer | Spec. Percent | Complies |
|------------|--------------------|---------------|---------------|----------|
| 0.375 in   | 9.50               | 100           |               |          |
| #4         | 4.75               | 97            |               |          |
| #10        | 2.00               | 93            |               |          |
| #20        | 0.85               | 87            |               |          |
| #40        | 0.42               | 72            |               |          |
| #60        | 0.25               | 58            |               |          |
| #100       | 0.15               | 44            |               |          |
| #200       | 0.075              | 32            |               |          |
| ---        | Particle Size (mm) | Percent Finer | Spec. Percent | Complies |
| ---        | 0.0333             | 27            |               |          |
| ---        | 0.0212             | 21            |               |          |
| ---        | 0.0125             | 16            |               |          |
| ---        | 0.0090             | 13            |               |          |
| ---        | 0.0064             | 11            |               |          |
| ---        | 0.0045             | 8             |               |          |
| ---        | 0.0033             | 6             |               |          |
| ---        | 0.0015             | 5             |               |          |

### Coefficients

|                             |                             |
|-----------------------------|-----------------------------|
| D <sub>85</sub> = 0.7741 mm | D <sub>30</sub> = 0.0581 mm |
| D <sub>60</sub> = 0.2711 mm | D <sub>15</sub> = 0.0113 mm |
| D <sub>50</sub> = 0.1863 mm | D <sub>10</sub> = 0.0059 mm |
| C <sub>u</sub> = N/A        | C <sub>c</sub> = N/A        |

### Classification

ASTM N/A

AASHTO Silty Gravel and Sand (A-2-4 (0))

### Sample/Test Description

Sand/Gravel Particle Shape : ROUNDED  
Sand/Gravel Hardness : HARD



|                     |                                               |             |     |
|---------------------|-----------------------------------------------|-------------|-----|
| Client:             | Moretrench American Corp.                     |             |     |
| Project Name:       | Shepley Landfill                              |             |     |
| Project Location:   | Devens, MA                                    |             |     |
| GTX #:              | 11659                                         |             |     |
| Start Date:         | 8/27/2012                                     | Tested By:  | ema |
| End Date:           | 8/30/2012                                     | Checked By: | jdt |
| Boring #:           | ---                                           |             |     |
| Sample #:           | BFM-9                                         |             |     |
| Depth:              | ---                                           |             |     |
| Visual Description: | Moist, olive clayey sand (soil-bentonite mix) |             |     |

## Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter by ASTM D 5084 Constant Volume

Sample Type: Remolded      Permeant Fluid: De-aired Distilled water  
 Orientation: Vertical      Cell #: 2/2/4  
 Sample Preparation: Test specimen compacted with moderate effort at the as-received moisture content . Trimmings moisture content = 28.4%

| Parameter               | Initial | Final |
|-------------------------|---------|-------|
| Height, in              | 2.56    | 2.29  |
| Diameter, in            | 2.85    | 2.72  |
| Area, in <sup>2</sup>   | 6.38    | 5.81  |
| Volume, in <sup>3</sup> | 16.3    | 13.3  |
| Mass, g                 | 509     | 470   |
| Bulk Density, pcf       | 118     | 134   |
| Moisture Content, %     | 28.9    | 19.1  |
| Dry Density, pcf        | 91.9    | 113   |
| Degree of Saturation, % | ---     | 97    |

### B COEFFICIENT DETERMINATION

Cell Pressure, psi: 95.1      Pressure Increment, psi: 5.03  
 Sample Pressure, psi: 90.2      B Coefficient: 0.98

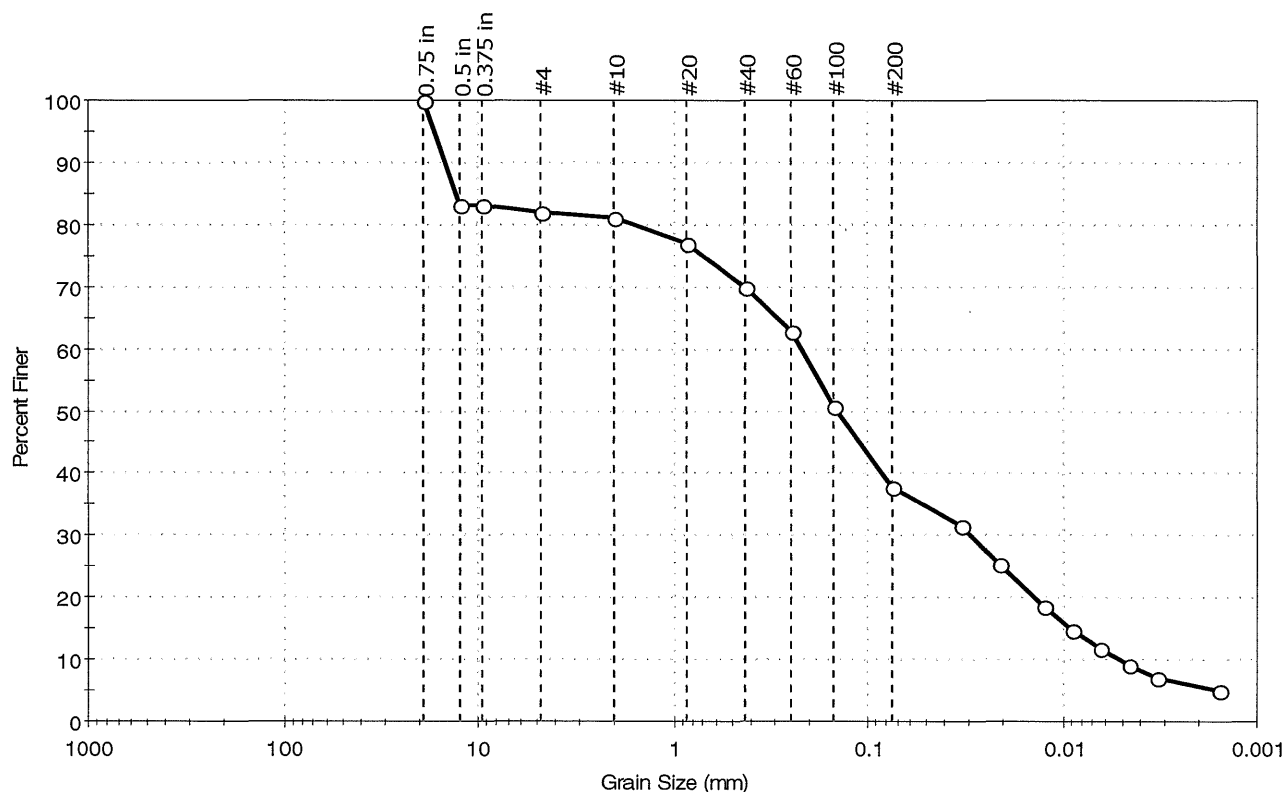
### FLOW DATA

| Date | Trial # | Pressure, psi |        | Manometer Readings |                |                                | Elapsed Time, sec | Gradient | Permeability K, cm/sec | Temp, °C | R <sub>t</sub> | Permeability K @ 20 °C, cm/sec |
|------|---------|---------------|--------|--------------------|----------------|--------------------------------|-------------------|----------|------------------------|----------|----------------|--------------------------------|
|      |         | Cell          | Sample | Z <sub>1</sub>     | Z <sub>2</sub> | Z <sub>1</sub> -Z <sub>2</sub> |                   |          |                        |          |                |                                |
| 8/29 | 1       | 90            | 85     | 12.0               | 11.8           | 0.2                            | 66                | 26.0     | 9.9E-08                | 20       | 1.000          | 9.9E-08                        |
| 8/29 | 2       | 90            | 85     | 12.0               | 11.8           | 0.2                            | 68                | 26.0     | 9.6E-08                | 20       | 1.000          | 9.6E-08                        |
| 8/29 | 3       | 90            | 85     | 12.0               | 11.8           | 0.2                            | 69                | 26.0     | 9.4E-08                | 20       | 1.000          | 9.4E-08                        |
| 8/29 | 4       | 90            | 85     | 12.0               | 11.8           | 0.2                            | 70                | 26.0     | 9.3E-08                | 20       | 1.000          | 9.3E-08                        |

**PERMEABILITY AT 20° C:  $9.5 \times 10^{-8}$  cm/sec (@ 5 psi effective stress)**

|                     |                                               |              |           |
|---------------------|-----------------------------------------------|--------------|-----------|
| Client:             | Moretrench American Corp.                     |              |           |
| Project:            | Shepley Landfill                              |              |           |
| Location:           | Devens, MA                                    | Project No:  | GTX-11659 |
| Boring ID:          | ---                                           | Sample Type: | bag       |
| Sample ID:          | BFM-10                                        | Test Date:   | 08/27/12  |
| Depth :             | ---                                           | Test Id:     | 248064    |
| Test Comment:       | ---                                           |              |           |
| Sample Description: | Moist, olive clayey sand (soil-bentonite mix) |              |           |
| Sample Comment:     | ---                                           |              |           |

## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
|----------|----------|--------|--------------------|
| ---      | 17.9     | 44.2   | 37.9               |

| Sieve Name | Sieve Size, mm     | Percent Finer | Spec. Percent | Complies |
|------------|--------------------|---------------|---------------|----------|
| 0.75 in    | 19.00              | 100           |               |          |
| 0.5 in     | 12.50              | 83            |               |          |
| 0.375 in   | 9.50               | 83            |               |          |
| #4         | 4.75               | 82            |               |          |
| #10        | 2.00               | 81            |               |          |
| #20        | 0.85               | 77            |               |          |
| #40        | 0.42               | 70            |               |          |
| #60        | 0.25               | 63            |               |          |
| #100       | 0.15               | 51            |               |          |
| #200       | 0.075              | 38            |               |          |
| ---        | Particle Size (mm) | Percent Finer | Spec. Percent | Complies |
| ---        | 0.0333             | 32            |               |          |
| ---        | 0.0210             | 25            |               |          |
| ---        | 0.0125             | 19            |               |          |
| ---        | 0.0090             | 15            |               |          |
| ---        | 0.0064             | 12            |               |          |
| ---        | 0.0046             | 9             |               |          |
| ---        | 0.0033             | 7             |               |          |
| ---        | 0.0016             | 5             |               |          |

| Coefficients                 |                             |
|------------------------------|-----------------------------|
| D <sub>85</sub> = 13.0717 mm | D <sub>30</sub> = 0.0295 mm |
| D <sub>60</sub> = 0.2212 mm  | D <sub>15</sub> = 0.0093 mm |
| D <sub>50</sub> = 0.1441 mm  | D <sub>10</sub> = 0.0050 mm |
| C <sub>u</sub> = N/A         | C <sub>c</sub> = N/A        |

| Classification |                       |
|----------------|-----------------------|
| ASTM           | N/A                   |
| AASHTO         | Silty Soils (A-4 (0)) |

| Sample/Test Description      |         |
|------------------------------|---------|
| Sand/Gravel Particle Shape : | ROUNDED |
| Sand/Gravel Hardness :       | HARD    |



|                     |                                                       |             |     |
|---------------------|-------------------------------------------------------|-------------|-----|
| Client:             | Moretrench American Corp.                             |             |     |
| Project Name:       | Shepley Landfill                                      |             |     |
| Project Location:   | Devens, MA                                            |             |     |
| GTX #:              | 11659                                                 |             |     |
| Start Date:         | 8/27/2012                                             | Tested By:  | ema |
| End Date:           | 8/30/2012                                             | Checked By: | jdt |
| Boring #:           | ---                                                   |             |     |
| Sample #:           | BFM-10                                                |             |     |
| Depth:              | ---                                                   |             |     |
| Visual Description: | Wet, yellowish brown clayey sand (soil-bentonite mix) |             |     |

## Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter by ASTM D 5084 Constant Volume

|                     |                                                                                                                       |                 |                          |
|---------------------|-----------------------------------------------------------------------------------------------------------------------|-----------------|--------------------------|
| Sample Type:        | Remolded                                                                                                              | Permeant Fluid: | De-aired Distilled water |
| Orientation:        | Vertical                                                                                                              | Cell #:         | 15/1/7                   |
| Sample Preparation: | Test specimen compacted with moderate effort at the as-received moisture content . Trimmings moisture content = 28.2% |                 |                          |

| Parameter               | Initial | Final |
|-------------------------|---------|-------|
| Height, in              | 2.66    | 2.32  |
| Diameter, in            | 2.85    | 2.72  |
| Area, in <sup>2</sup>   | 6.38    | 5.81  |
| Volume, in <sup>3</sup> | 17.0    | 13.5  |
| Mass, g                 | 506     | 471   |
| Bulk Density, pcf       | 113     | 133   |
| Moisture Content, %     | 29.8    | 20.9  |
| Dry Density, pcf        | 87.3    | 110   |
| Degree of Saturation, % | ---     | 99    |

### B COEFFICIENT DETERMINATION

|                       |      |                          |      |
|-----------------------|------|--------------------------|------|
| Cell Pressure, psi:   | 95.2 | Pressure Increment, psi: | 5.00 |
| Sample Pressure, psi: | 90.2 | B Coefficient:           | 0.98 |

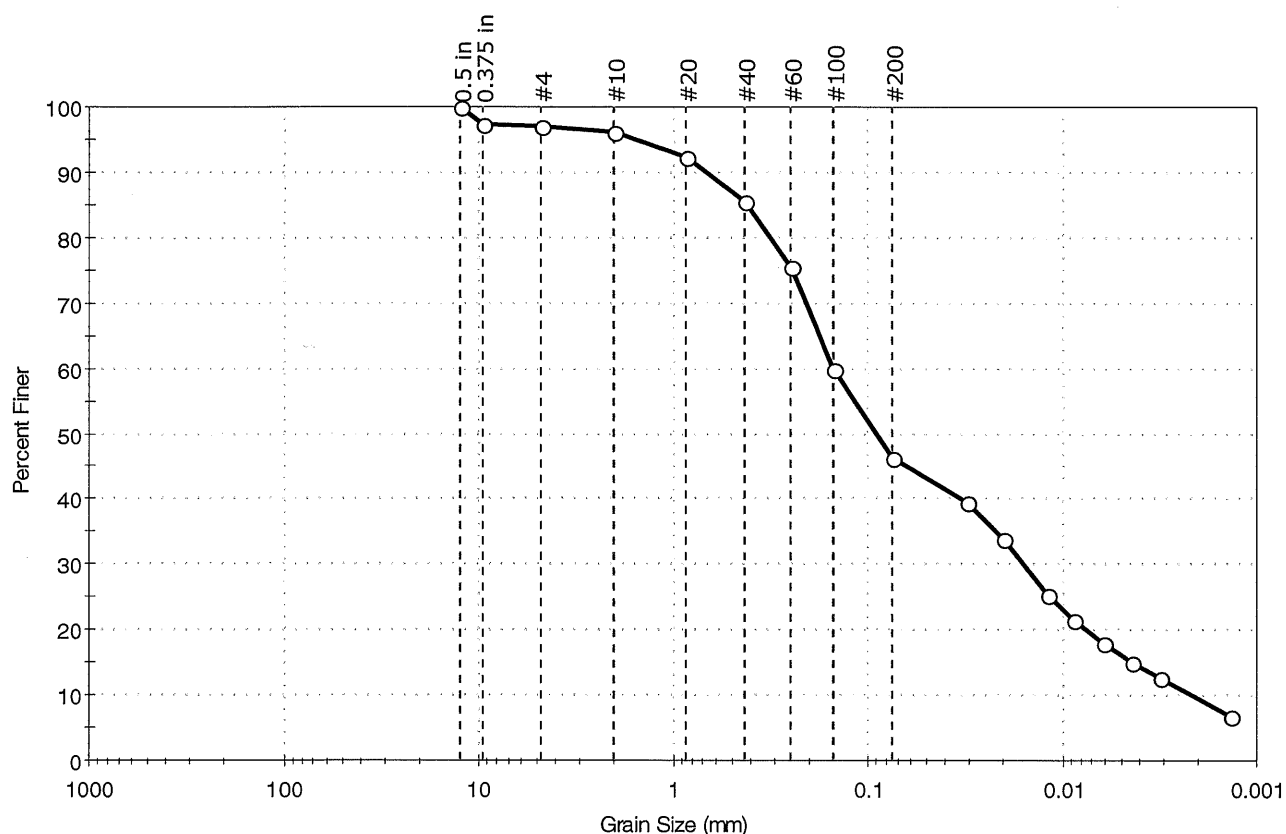
### FLOW DATA

| Date | Trial # | Pressure, psi |        | Manometer Readings |                |                                | Elapsed Time, sec | Gradient | Permeability K, cm/sec | Temp, °C | R <sub>t</sub> | Permeability K @ 20 °C, cm/sec |
|------|---------|---------------|--------|--------------------|----------------|--------------------------------|-------------------|----------|------------------------|----------|----------------|--------------------------------|
|      |         | Cell          | Sample | Z <sub>1</sub>     | Z <sub>2</sub> | Z <sub>1</sub> -Z <sub>2</sub> |                   |          |                        |          |                |                                |
| 8/29 | 1       | 90            | 85     | 12.0               | 11.9           | 0.1                            | 38                | 25.7     | 8.6E-08                | 20       | 1.000          | 8.6E-08                        |
| 8/29 | 2       | 90            | 85     | 12.0               | 11.9           | 0.1                            | 40                | 25.7     | 8.2E-08                | 20       | 1.000          | 8.2E-08                        |
| 8/29 | 3       | 90            | 85     | 12.0               | 11.9           | 0.1                            | 41                | 25.7     | 8.0E-08                | 20       | 1.000          | 8.0E-08                        |
| 8/29 | 4       | 90            | 85     | 12.0               | 11.9           | 0.1                            | 41                | 25.7     | 8.0E-08                | 20       | 1.000          | 8.0E-08                        |

**PERMEABILITY AT 20° C:  $8.2 \times 10^{-8}$  cm/sec (@ 5 psi effective stress)**

|                                                                             |                       |
|-----------------------------------------------------------------------------|-----------------------|
| Client: Moretrench American Corp.                                           | Project No: GTX-11659 |
| Project: Shepley Landfill                                                   |                       |
| Location: Devens, MA                                                        |                       |
| Boring ID: ---                                                              | Sample Type: bag      |
| Sample ID: BFM-13                                                           | Test Date: 09/06/12   |
| Depth: ---                                                                  | Test Id: 248846       |
| Test Comment: ---                                                           | Tested By: jbr        |
| Sample Description: Moist, yellowish brown clayey sand (soil-bentonite mix) | Checked By: jdt       |
| Sample Comment: ---                                                         |                       |

## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
|----------|----------|--------|--------------------|
| ---      | 2.9      | 50.9   | 46.2               |

| Sieve Name | Sieve Size, mm     | Percent Finer | Spec. Percent | Complies |
|------------|--------------------|---------------|---------------|----------|
| 0.5 in     | 12.50              | 100           |               |          |
| 0.375 in   | 9.50               | 97            |               |          |
| #4         | 4.75               | 97            |               |          |
| #10        | 2.00               | 96            |               |          |
| #20        | 0.85               | 92            |               |          |
| #40        | 0.42               | 86            |               |          |
| #60        | 0.25               | 76            |               |          |
| #100       | 0.15               | 60            |               |          |
| #200       | 0.075              | 46            |               |          |
| ---        | Particle Size (mm) | Percent Finer | Spec. Percent | Complies |
| ---        | 0.0313             | 39            |               |          |
| ---        | 0.0200             | 34            |               |          |
| ---        | 0.0121             | 25            |               |          |
| ---        | 0.0087             | 22            |               |          |
| ---        | 0.0062             | 18            |               |          |
| ---        | 0.0044             | 15            |               |          |
| ---        | 0.0032             | 13            |               |          |
| ---        | 0.0014             | 7             |               |          |

### Coefficients

|                             |                             |
|-----------------------------|-----------------------------|
| D <sub>85</sub> = 0.4098 mm | D <sub>30</sub> = 0.0158 mm |
| D <sub>60</sub> = 0.1507 mm | D <sub>15</sub> = 0.0044 mm |
| D <sub>50</sub> = 0.0908 mm | D <sub>10</sub> = 0.0021 mm |
| C <sub>u</sub> = N/A        | C <sub>c</sub> = N/A        |

### Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

### Sample/Test Description

Sand/Gravel Particle Shape : ROUNDED  
Sand/Gravel Hardness : HARD



|                     |                                                                   |             |     |
|---------------------|-------------------------------------------------------------------|-------------|-----|
| Client:             | Moretrench American Corp.                                         |             |     |
| Project Name:       | Shepley Landfill                                                  |             |     |
| Project Location:   | Devens, MA                                                        |             |     |
| GTX #:              | 11659                                                             |             |     |
| Start Date:         | 9/5/2012                                                          | Tested By:  | ema |
| End Date:           | 9/12/2012                                                         | Checked By: | jdt |
| Boring #:           | ---                                                               |             |     |
| Sample #:           | BFM-13                                                            |             |     |
| Depth:              | ---                                                               |             |     |
| Visual Description: | Wet, yellowish brown clayey sand with gravel (soil-bentonite mix) |             |     |

## Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter by ASTM D 5084 Constant Volume

Sample Type:

Remolded

Permeant Fluid:

De-aired Distilled water

Orientation:

Vertical

Cell #:

9/7/14

Sample Preparation:

Test specimen compacted with moderate effort at the as-received moisture content . Trimmings moisture content = 32.6%

| Parameter               | Initial | Final |
|-------------------------|---------|-------|
| Height, in              | 2.44    | 2.38  |
| Diameter, in            | 2.85    | 2.69  |
| Area, in <sup>2</sup>   | 6.38    | 5.68  |
| Volume, in <sup>3</sup> | 15.6    | 13.5  |
| Mass, g                 | 508     | 467   |
| Bulk Density, pcf       | 124     | 131   |
| Moisture Content, %     | 31.2    | 20.6  |
| Dry Density, pcf        | 94.5    | 109   |
| Degree of Saturation, % | ---     | 95    |

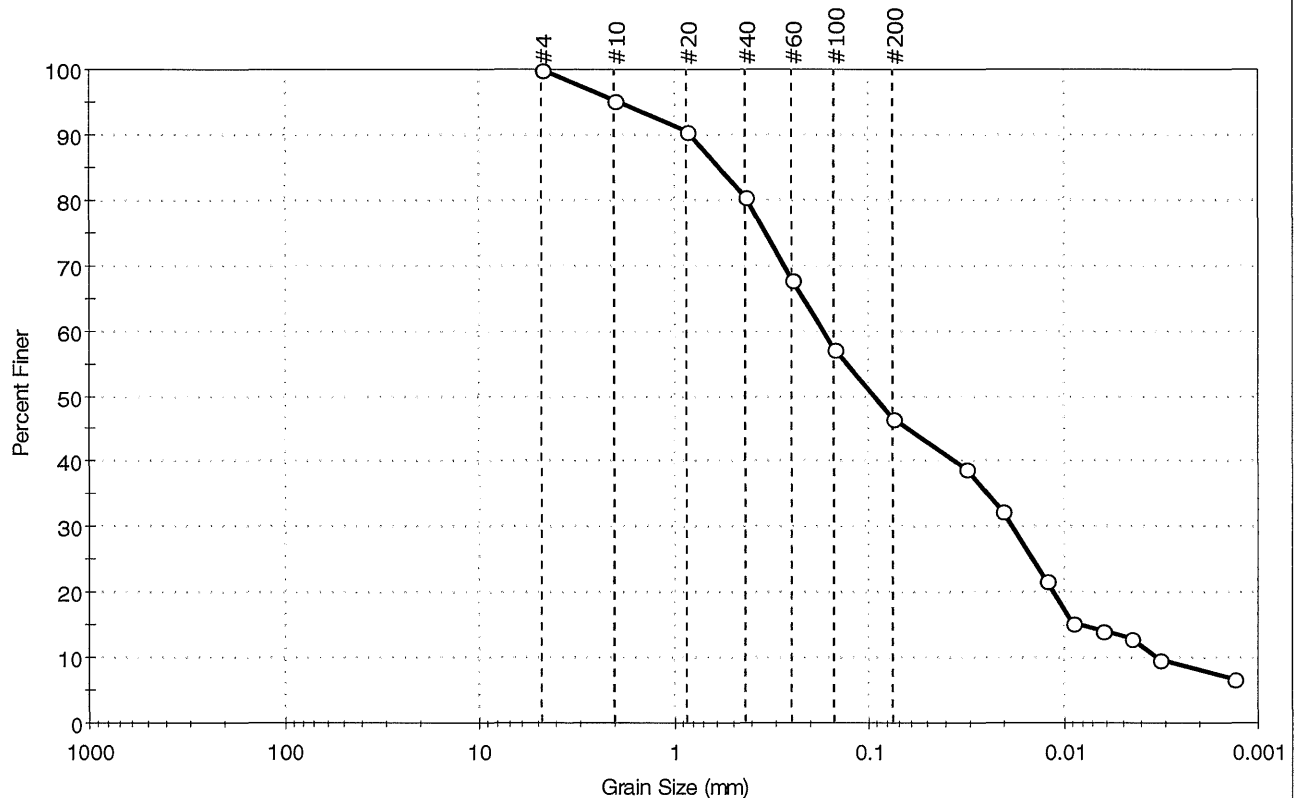
| B COEFFICIENT DETERMINATION |         |               |        |                          |                |                                |                   |          |                        |          |                |                                |
|-----------------------------|---------|---------------|--------|--------------------------|----------------|--------------------------------|-------------------|----------|------------------------|----------|----------------|--------------------------------|
| Cell Pressure, psi:         |         | 95.2          |        | Pressure Increment, psi: |                | 5.01                           |                   |          |                        |          |                |                                |
| Sample Pressure, psi:       |         | 90.0          |        | B Coefficient:           |                | 0.97                           |                   |          |                        |          |                |                                |
| FLOW DATA                   |         |               |        |                          |                |                                |                   |          |                        |          |                |                                |
| Date                        | Trial # | Pressure, psi |        | Manometer Readings       |                |                                | Elapsed Time, sec | Gradient | Permeability K, cm/sec | Temp, °C | R <sub>t</sub> | Permeability K @ 20 °C, cm/sec |
|                             |         | Cell          | Sample | Z <sub>1</sub>           | Z <sub>2</sub> | Z <sub>1</sub> -Z <sub>2</sub> |                   |          |                        |          |                |                                |
| 9/11                        | 2       | 90            | 85     | 12.0                     | 11.8           | 0.2                            | 63                | 25.0     | 1.1E-07                | 20       | 1.000          | 1.1E-07                        |
| 9/11                        | 3       | 90            | 85     | 12.0                     | 11.8           | 0.2                            | 66                | 25.0     | 1.0E-07                | 20       | 1.000          | 1.0E-07                        |
| 9/11                        | 4       | 90            | 85     | 12.0                     | 11.8           | 0.2                            | 67                | 25.0     | 1.0E-07                | 20       | 1.000          | 1.0E-07                        |
| 9/11                        | 5       | 90            | 85     | 12.0                     | 11.8           | 0.2                            | 67                | 25.0     | 1.0E-07                | 20       | 1.000          | 1.0E-07                        |

PERMEABILITY AT 20° C:  $1.0 \times 10^{-7}$  cm/sec (@ 5 psi effective stress)



|                                                                           |                       |                     |
|---------------------------------------------------------------------------|-----------------------|---------------------|
| Client: Moretrench American Corp.                                         | Project No: GTX-11659 |                     |
| Project: Shepley Landfill                                                 |                       |                     |
| Location: Devens, MA                                                      | Boring ID: ---        | Sample Type: bag    |
|                                                                           | Sample ID: BFM-16     | Test Date: 09/06/12 |
|                                                                           | Depth: ---            | Test Id: 248847     |
| Test Comment: ---                                                         |                       |                     |
| Sample Description: Wet, yellowish brown clayey sand (soil-bentonite mix) |                       |                     |
| Sample Comment: ---                                                       |                       |                     |

## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
|----------|----------|--------|--------------------|
| --       | 0.0      | 53.4   | 46.6               |

| Sieve Name | Sieve Size, mm     | Percent Finer | Spec. Percent | Complies |
|------------|--------------------|---------------|---------------|----------|
| #4         | 4.75               | 100           |               |          |
| #10        | 2.00               | 95            |               |          |
| #20        | 0.85               | 90            |               |          |
| #40        | 0.42               | 80            |               |          |
| #60        | 0.25               | 68            |               |          |
| #100       | 0.15               | 57            |               |          |
| #200       | 0.075              | 47            |               |          |
| ---        | Particle Size (mm) | Percent Finer | Spec. Percent | Complies |
| ---        | 0.0317             | 39            |               |          |
| ---        | 0.0205             | 32            |               |          |
| ---        | 0.0123             | 22            |               |          |
| ---        | 0.0090             | 15            |               |          |
| ---        | 0.0063             | 14            |               |          |
| ---        | 0.0045             | 13            |               |          |
| ---        | 0.0032             | 10            |               |          |
| ---        | 0.0013             | 7             |               |          |

### Coefficients

|                             |                             |
|-----------------------------|-----------------------------|
| D <sub>85</sub> = 0.5824 mm | D <sub>30</sub> = 0.0183 mm |
| D <sub>60</sub> = 0.1722 mm | D <sub>15</sub> = 0.0084 mm |
| D <sub>50</sub> = 0.0938 mm | D <sub>10</sub> = 0.0034 mm |
| C <sub>u</sub> = N/A        | C <sub>c</sub> = N/A        |

### Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

### Sample/Test Description

Sand/Gravel Particle Shape : ROUNDED  
Sand/Gravel Hardness : HARD



|                     |                                                       |             |     |
|---------------------|-------------------------------------------------------|-------------|-----|
| Client:             | Moretrench American Corp.                             |             |     |
| Project Name:       | Shepley Landfill                                      |             |     |
| Project Location:   | Devens, MA                                            |             |     |
| GTX #:              | 11659                                                 |             |     |
| Start Date:         | 9/5/2012                                              | Tested By:  | ema |
| End Date:           | 9/10/2012                                             | Checked By: | jdt |
| Boring #:           | ---                                                   |             |     |
| Sample #:           | BFM-16                                                |             |     |
| Depth:              | ---                                                   |             |     |
| Visual Description: | Wet, yellowish brown clayey sand (soil-bentonite mix) |             |     |

## Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter by ASTM D 5084 Constant Volume

|                     |                                                                                                                       |                 |                          |
|---------------------|-----------------------------------------------------------------------------------------------------------------------|-----------------|--------------------------|
| Sample Type:        | Remolded                                                                                                              | Permeant Fluid: | De-aired Distilled water |
| Orientation:        | Vertical                                                                                                              | Cell #:         | 15/1/7                   |
| Sample Preparation: | Test specimen compacted with moderate effort at the as-received moisture content . Trimmings moisture content = 28.0% |                 |                          |

| Parameter               | Initial | Final |
|-------------------------|---------|-------|
| Height, in              | 2.40    | 2.14  |
| Diameter, in            | 2.85    | 2.75  |
| Area, in <sup>2</sup>   | 6.38    | 5.94  |
| Volume, in <sup>3</sup> | 15.3    | 12.7  |
| Mass, g                 | 462     | 437   |
| Bulk Density, pcf       | 115     | 131   |
| Moisture Content, %     | 29.6    | 22.5  |
| Dry Density, pcf        | 88.5    | 107   |
| Degree of Saturation, % | ---     | 98    |

### B COEFFICIENT DETERMINATION

|                       |      |                          |      |
|-----------------------|------|--------------------------|------|
| Cell Pressure, psi:   | 95.3 | Pressure Increment, psi: | 5.12 |
| Sample Pressure, psi: | 90.3 | B Coefficient:           | 0.96 |

### FLOW DATA

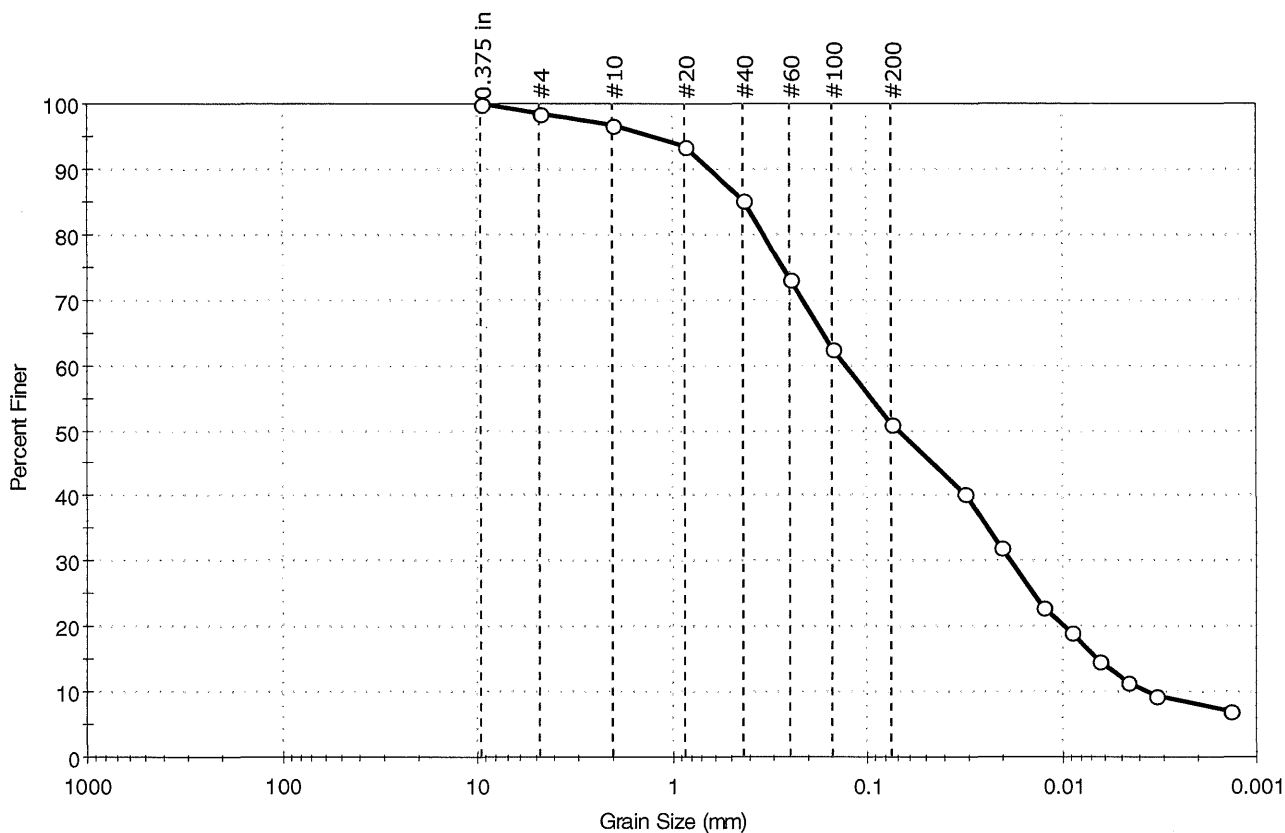
| Date | Trial # | Pressure, psi |        | Manometer Readings |                |                                | Elapsed Time, sec | Gradient | Permeability K, cm/sec | Temp, °C | R <sub>t</sub> | Permeability K @ 20 °C, cm/sec |
|------|---------|---------------|--------|--------------------|----------------|--------------------------------|-------------------|----------|------------------------|----------|----------------|--------------------------------|
|      |         | Cell          | Sample | Z <sub>1</sub>     | Z <sub>2</sub> | Z <sub>1</sub> -Z <sub>2</sub> |                   |          |                        |          |                |                                |
| 9/7  | 1       | 90            | 85     | 12.0               | 11.9           | 0.1                            | 35                | 27.8     | 8.5E-08                | 20       | 1.000          | 8.5E-08                        |
| 9/7  | 2       | 90            | 85     | 12.0               | 11.9           | 0.1                            | 37                | 27.8     | 8.0E-08                | 20       | 1.000          | 8.0E-08                        |
| 9/7  | 3       | 90            | 85     | 12.0               | 11.9           | 0.1                            | 41                | 27.8     | 7.2E-08                | 20       | 1.000          | 7.2E-08                        |
| 9/7  | 4       | 90            | 85     | 12.0               | 11.9           | 0.1                            | 42                | 27.8     | 7.0E-08                | 20       | 1.000          | 7.0E-08                        |

**PERMEABILITY AT 20° C:  $7.7 \times 10^{-8}$  cm/sec (@ 5 psi effective stress)**



|                                                                          |                       |
|--------------------------------------------------------------------------|-----------------------|
| Client: Moretrench American Corp.                                        | Project No: GTX-11659 |
| Project: Shepley Landfill                                                |                       |
| Location: Devens, MA                                                     |                       |
| Boring ID: ---                                                           | Sample Type: bag      |
| Sample ID: BFM-18                                                        | Test Date: 09/07/12   |
| Depth: ---                                                               | Test Id: 248848       |
| Test Comment: ---                                                        | Tested By: jbr        |
| Sample Description: Wet, yellowish brown sandy clay (soil-bentonite mix) | Checked By: jdt       |
| Sample Comment: ---                                                      |                       |

## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
|----------|----------|--------|--------------------|
| ---      | 1.6      | 47.3   | 51.1               |

| Sieve Name | Sieve Size, mm     | Percent Finer | Spec. Percent | Complies |
|------------|--------------------|---------------|---------------|----------|
| 0.375 in   | 9.50               | 100           |               |          |
| #4         | 4.75               | 98            |               |          |
| #10        | 2.00               | 97            |               |          |
| #20        | 0.85               | 93            |               |          |
| #40        | 0.42               | 85            |               |          |
| #60        | 0.25               | 73            |               |          |
| #100       | 0.15               | 62            |               |          |
| #200       | 0.075              | 51            |               |          |
| ---        | Particle Size (mm) | Percent Finer | Spec. Percent | Complies |
| ---        | 0.0316             | 41            |               |          |
| ---        | 0.0208             | 32            |               |          |
| ---        | 0.0125             | 23            |               |          |
| ---        | 0.0090             | 19            |               |          |
| ---        | 0.0065             | 15            |               |          |
| ---        | 0.0046             | 12            |               |          |
| ---        | 0.0033             | 9             |               |          |
| ---        | 0.0014             | 7             |               |          |

### Coefficients

|                             |                             |
|-----------------------------|-----------------------------|
| D <sub>85</sub> = 0.4209 mm | D <sub>30</sub> = 0.0184 mm |
| D <sub>60</sub> = 0.1294 mm | D <sub>15</sub> = 0.0066 mm |
| D <sub>50</sub> = 0.0685 mm | D <sub>10</sub> = 0.0037 mm |
| C <sub>u</sub> = N/A        | C <sub>c</sub> = N/A        |

### Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

### Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---



|                     |                                                      |             |     |
|---------------------|------------------------------------------------------|-------------|-----|
| Client:             | Moretrench American Corp.                            |             |     |
| Project Name:       | Shepley Landfill                                     |             |     |
| Project Location:   | Devens, MA                                           |             |     |
| GTX #:              | 11659                                                |             |     |
| Start Date:         | 9/6/2012                                             | Tested By:  | ema |
| End Date:           | 9/10/2012                                            | Checked By: | jdt |
| Boring #:           | ---                                                  |             |     |
| Sample #:           | BFM-18                                               |             |     |
| Depth:              | ---                                                  |             |     |
| Visual Description: | Wet, yellowish brown sandy clay (soil-bentonite mix) |             |     |

## Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter by ASTM D 5084 Constant Volume

Sample Type: Remolded      Permeant Fluid: De-aired Distilled water  
 Orientation: Vertical      Cell #: 2/2/4  
 Sample Preparation: Test specimen compacted with moderate effort at the as-received moisture content . Trimmings moisture content = 31.6%

| Parameter               | Initial | Final |
|-------------------------|---------|-------|
| Height, in              | 2.63    | 2.31  |
| Diameter, in            | 2.85    | 2.67  |
| Area, in <sup>2</sup>   | 6.38    | 5.60  |
| Volume, in <sup>3</sup> | 16.8    | 12.9  |
| Mass, g                 | 488     | 458   |
| Bulk Density, pcf       | 111     | 135   |
| Moisture Content, %     | 25.9    | 18.2  |
| Dry Density, pcf        | 87.8    | 114   |
| Degree of Saturation, % | ---     | 96    |

### B COEFFICIENT DETERMINATION

Cell Pressure, psi: 95.1      Pressure Increment, psi: 5.06  
 Sample Pressure, psi: 90.2      B Coefficient: 0.97

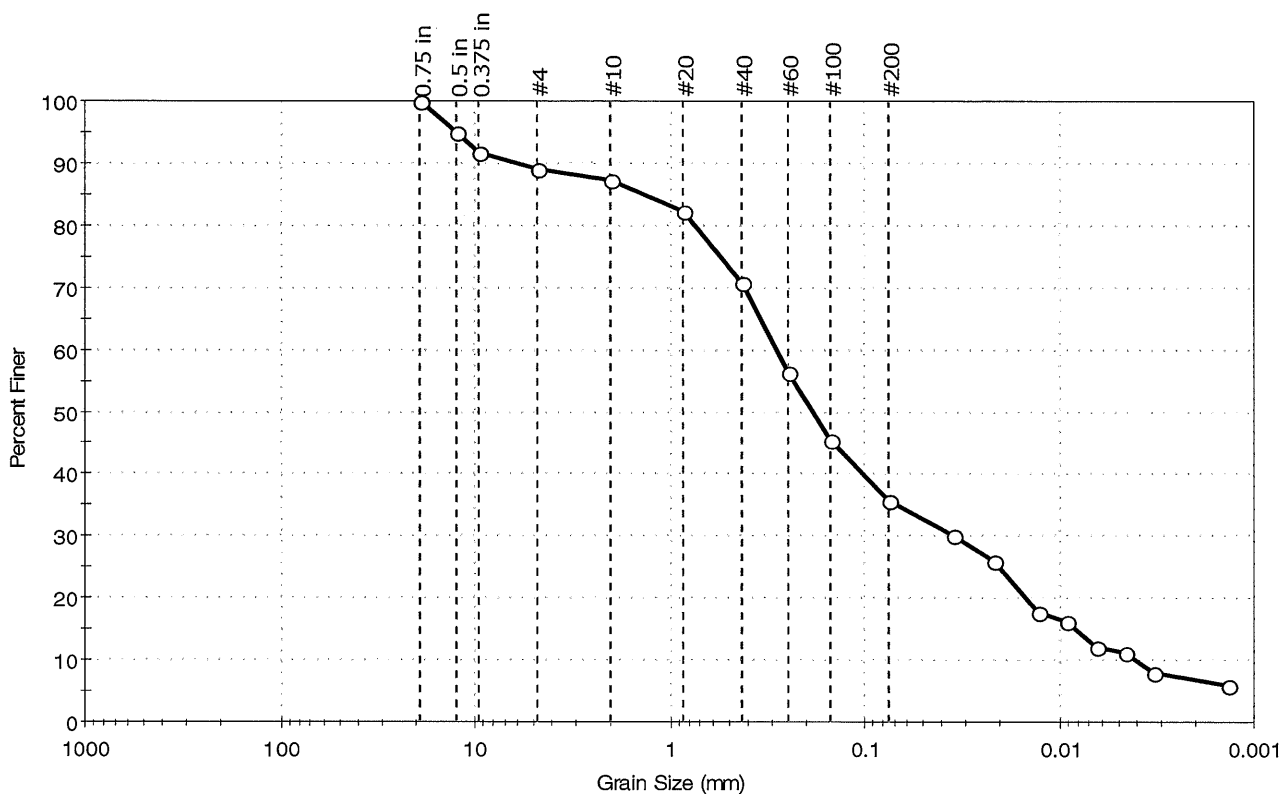
### FLOW DATA

| Date | Trial # | Pressure, psi |        | Manometer Readings |                |                                | Elapsed Time, sec | Gradient | Permeability K, cm/sec | Temp, °C | R <sub>t</sub> | Permeability K @ 20 °C, cm/sec |
|------|---------|---------------|--------|--------------------|----------------|--------------------------------|-------------------|----------|------------------------|----------|----------------|--------------------------------|
|      |         | Cell          | Sample | Z <sub>1</sub>     | Z <sub>2</sub> | Z <sub>1</sub> -Z <sub>2</sub> |                   |          |                        |          |                |                                |
| 9/7  | 5       | 90            | 85     | 12.0               | 11.9           | 0.1                            | 32                | 25.8     | 1.1E-07                | 20       | 1.000          | 1.1E-07                        |
| 9/7  | 6       | 90            | 85     | 12.0               | 11.9           | 0.1                            | 36                | 25.8     | 9.4E-08                | 20       | 1.000          | 9.4E-08                        |
| 9/7  | 7       | 90            | 85     | 12.0               | 11.9           | 0.1                            | 38                | 25.8     | 8.9E-08                | 20       | 1.000          | 8.9E-08                        |
| 9/7  | 8       | 90            | 85     | 12.0               | 11.9           | 0.1                            | 40                | 25.8     | 8.5E-08                | 20       | 1.000          | 8.5E-08                        |

**PERMEABILITY AT 20° C:  $9.4 \times 10^{-8}$  cm/sec (@ 5 psi effective stress)**

|                                                                           |                       |
|---------------------------------------------------------------------------|-----------------------|
| Client: Moretrench American Corp.                                         | Project No: GTX-11659 |
| Project: Shepley Landfill                                                 | Tested By: jbr        |
| Location: Devens, MA                                                      | Checked By: jdt       |
| Boring ID: ---                                                            | Sample Type: bag      |
| Sample ID: BFM-20                                                         | Test Date: 09/06/12   |
| Depth: ---                                                                | Test Id: 248849       |
| Test Comment: ---                                                         |                       |
| Sample Description: Wet, yellowish brown clayey sand (soil-bentonite mix) |                       |
| Sample Comment: ---                                                       |                       |

## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
|----------|----------|--------|--------------------|
| ---      | 10.9     | 53.5   | 35.6               |

| Sieve Name | Sieve Size, mm     | Percent Finer | Spec. Percent | Complies |
|------------|--------------------|---------------|---------------|----------|
| 0.75 in    | 19.00              | 100           |               |          |
| 0.5 in     | 12.50              | 95            |               |          |
| 0.375 in   | 9.50               | 92            |               |          |
| #4         | 4.75               | 89            |               |          |
| #10        | 2.00               | 87            |               |          |
| #20        | 0.85               | 82            |               |          |
| #40        | 0.42               | 71            |               |          |
| #60        | 0.25               | 56            |               |          |
| #100       | 0.15               | 46            |               |          |
| #200       | 0.075              | 36            |               |          |
| ---        | Particle Size (mm) | Percent Finer | Spec. Percent | Complies |
| ---        | 0.0347             | 30            |               |          |
| ---        | 0.0216             | 26            |               |          |
| ---        | 0.0128             | 18            |               |          |
| ---        | 0.0091             | 16            |               |          |
| ---        | 0.0065             | 12            |               |          |
| ---        | 0.0046             | 11            |               |          |
| ---        | 0.0033             | 8             |               |          |
| ---        | 0.0014             | 6             |               |          |

| Coefficients                |                             |
|-----------------------------|-----------------------------|
| D <sub>85</sub> = 1.3216 mm | D <sub>30</sub> = 0.0340 mm |
| D <sub>60</sub> = 0.2873 mm | D <sub>15</sub> = 0.0083 mm |
| D <sub>50</sub> = 0.1858 mm | D <sub>10</sub> = 0.0040 mm |
| C <sub>u</sub> = N/A        | C <sub>c</sub> = N/A        |

| Classification |                       |
|----------------|-----------------------|
| ASTM           | N/A                   |
| AASHTO         | Silty Soils (A-4 (0)) |

| Sample/Test Description    |           |
|----------------------------|-----------|
| Sand/Gravel Particle Shape | : ROUNDED |
| Sand/Gravel Hardness       | : HARD    |



|                     |                                                       |             |     |
|---------------------|-------------------------------------------------------|-------------|-----|
| Client:             | Moretrench American Corp.                             |             |     |
| Project Name:       | Shepley Landfill                                      |             |     |
| Project Location:   | Devens, MA                                            |             |     |
| GTX #:              | 11659                                                 |             |     |
| Start Date:         | 9/6/2012                                              | Tested By:  | ema |
| End Date:           | 9/10/2012                                             | Checked By: | jdt |
| Boring #:           | ---                                                   |             |     |
| Sample #:           | BFM-20                                                |             |     |
| Depth:              | ---                                                   |             |     |
| Visual Description: | Wet, yellowish brown clayey sand (soil-bentonite mix) |             |     |

## Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter by ASTM D 5084 Constant Volume

Sample Type: Remolded      Permeant Fluid: De-aired Distilled water  
 Orientation: Vertical      Cell #: 3/9  
 Sample Preparation: Test specimen compacted with moderate effort at the as-received moisture content . Trimmings moisture content = 26.3%

| Parameter               | Initial | Final |
|-------------------------|---------|-------|
| Height, in              | 2.43    | 2.32  |
| Diameter, in            | 2.85    | 2.75  |
| Area, in <sup>2</sup>   | 6.38    | 5.94  |
| Volume, in <sup>3</sup> | 15.5    | 13.8  |
| Mass, g                 | 481     | 458   |
| Bulk Density, pcf       | 118     | 126   |
| Moisture Content, %     | 28.6    | 22.5  |
| Dry Density, pcf        | 91.7    | 103   |
| Degree of Saturation, % | ---     | 96    |

### B COEFFICIENT DETERMINATION

Cell Pressure, psi: 95.3      Pressure Increment, psi: 5.04  
 Sample Pressure, psi: 90.2      B Coefficient: 0.99

### FLOW DATA

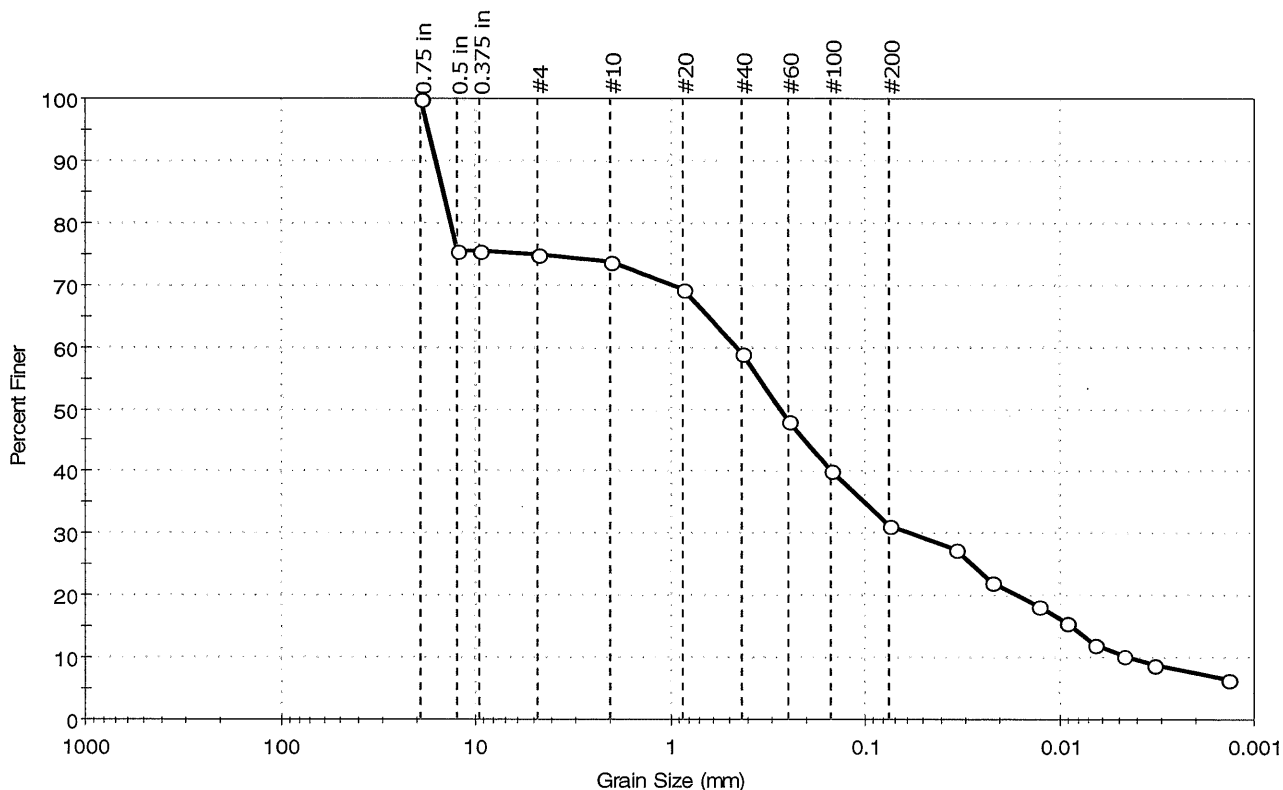
| Date | Trial # | Pressure, psi |        | Manometer Readings |                |                                | Elapsed Time, sec | Gradient | Permeability K, cm/sec | Temp, °C | R <sub>t</sub> | Permeability K @ 20 °C, cm/sec |
|------|---------|---------------|--------|--------------------|----------------|--------------------------------|-------------------|----------|------------------------|----------|----------------|--------------------------------|
|      |         | Cell          | Sample | Z <sub>1</sub>     | Z <sub>2</sub> | Z <sub>1</sub> -Z <sub>2</sub> |                   |          |                        |          |                |                                |
| 9/7  | 1       | 90            | 85     | 12.0               | 11.9           | 0.1                            | 35                | 25.7     | 9.2E-08                | 20       | 1.000          | 9.2E-08                        |
| 9/7  | 2       | 90            | 85     | 12.0               | 11.9           | 0.1                            | 35                | 25.7     | 9.2E-08                | 20       | 1.000          | 9.2E-08                        |
| 9/7  | 3       | 90            | 85     | 12.0               | 11.9           | 0.1                            | 36                | 25.7     | 8.9E-08                | 20       | 1.000          | 8.9E-08                        |
| 9/7  | 4       | 90            | 85     | 12.0               | 11.9           | 0.1                            | 37                | 25.7     | 8.7E-08                | 20       | 1.000          | 8.7E-08                        |

**PERMEABILITY AT 20° C:  $9.0 \times 10^{-8}$  cm/sec (@ 5 psi effective stress)**



|                     |                                                                     |              |           |
|---------------------|---------------------------------------------------------------------|--------------|-----------|
| Client:             | Moretrench American Corp.                                           | Project No:  | GTX-11659 |
| Project:            | Shepley Landfill                                                    | Sample Type: | bag       |
| Location:           | Devens, MA                                                          | Tested By:   | jbr       |
| Boring ID:          | ---                                                                 | Test Date:   | 09/07/12  |
| Sample ID:          | BFM-21                                                              | Checked By:  | jdt       |
| Depth :             | ---                                                                 | Test Id:     | 248850    |
| Test Comment:       | ---                                                                 |              |           |
| Sample Description: | Moist, yellowish brown clayey sand with gravel (soil-bentonite mix) |              |           |
| Sample Comment:     | ---                                                                 |              |           |

## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
|----------|----------|--------|--------------------|
| ---      | 25.1     | 43.5   | 31.4               |

| Sieve Name | Sieve Size, mm     | Percent Finer | Spec. Percent | Complies |
|------------|--------------------|---------------|---------------|----------|
| 0.75 in    | 19.00              | 100           |               |          |
| 0.5 in     | 12.50              | 76            |               |          |
| 0.375 in   | 9.50               | 76            |               |          |
| #4         | 4.75               | 75            |               |          |
| #10        | 2.00               | 74            |               |          |
| #20        | 0.85               | 69            |               |          |
| #40        | 0.42               | 59            |               |          |
| #60        | 0.25               | 48            |               |          |
| #100       | 0.15               | 40            |               |          |
| #200       | 0.075              | 31            |               |          |
| ---        | Particle Size (mm) | Percent Finer | Spec. Percent | Complies |
| ---        | 0.0342             | 28            |               |          |
| ---        | 0.0220             | 22            |               |          |
| ---        | 0.0129             | 18            |               |          |
| ---        | 0.0092             | 16            |               |          |
| ---        | 0.0066             | 12            |               |          |
| ---        | 0.0047             | 10            |               |          |
| ---        | 0.0033             | 9             |               |          |
| ---        | 0.0014             | 7             |               |          |

### Coefficients

|                              |                             |
|------------------------------|-----------------------------|
| D <sub>85</sub> = 14.6863 mm | D <sub>30</sub> = 0.0565 mm |
| D <sub>60</sub> = 0.4531 mm  | D <sub>15</sub> = 0.0086 mm |
| D <sub>50</sub> = 0.2758 mm  | D <sub>10</sub> = 0.0044 mm |
| C <sub>u</sub> = N/A         | C <sub>c</sub> = N/A        |

### Classification

|        |                                   |
|--------|-----------------------------------|
| ASTM   | N/A                               |
| AASHTO | Silty Gravel and Sand (A-2-4 (0)) |

### Sample/Test Description

Sand/Gravel Particle Shape : **ROUNDED**  
 Sand/Gravel Hardness : **HARD**



|                     |                                                                   |             |     |
|---------------------|-------------------------------------------------------------------|-------------|-----|
| Client:             | Moretrench American Corp.                                         |             |     |
| Project Name:       | Shepley Landfill                                                  |             |     |
| Project Location:   | Devens, MA                                                        |             |     |
| GTX #:              | 11659                                                             |             |     |
| Start Date:         | 9/6/2012                                                          | Tested By:  | ema |
| End Date:           | 9/10/2012                                                         | Checked By: | jdt |
| Boring #:           | ---                                                               |             |     |
| Sample #:           | BFM-21                                                            |             |     |
| Depth:              | ---                                                               |             |     |
| Visual Description: | Wet, yellowish brown clayey sand with gravel (soil-bentonite mix) |             |     |

## Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter by ASTM D 5084 Constant Volume

|                     |                                                                                                                       |                 |                          |
|---------------------|-----------------------------------------------------------------------------------------------------------------------|-----------------|--------------------------|
| Sample Type:        | Remolded                                                                                                              | Permeant Fluid: | De-aired Distilled water |
| Orientation:        | Vertical                                                                                                              | Cell #:         | 12/2                     |
| Sample Preparation: | Test specimen compacted with moderate effort at the as-received moisture content . Trimmings moisture content = 29.3% |                 |                          |

| Parameter               | Initial | Final |
|-------------------------|---------|-------|
| Height, in              | 2.32    | 2.29  |
| Diameter, in            | 2.85    | 2.65  |
| Area, in <sup>2</sup>   | 6.38    | 5.52  |
| Volume, in <sup>3</sup> | 14.8    | 12.6  |
| Mass, g                 | 459     | 430   |
| Bulk Density, pcf       | 118     | 130   |
| Moisture Content, %     | 30.2    | 22.1  |
| Dry Density, pcf        | 90.5    | 106   |
| Degree of Saturation, % | ---     | 95    |

### B COEFFICIENT DETERMINATION

|                       |      |                          |      |
|-----------------------|------|--------------------------|------|
| Cell Pressure, psi:   | 95.2 | Pressure Increment, psi: | 5.02 |
| Sample Pressure, psi: | 90.1 | B Coefficient:           | 0.98 |

### FLOW DATA

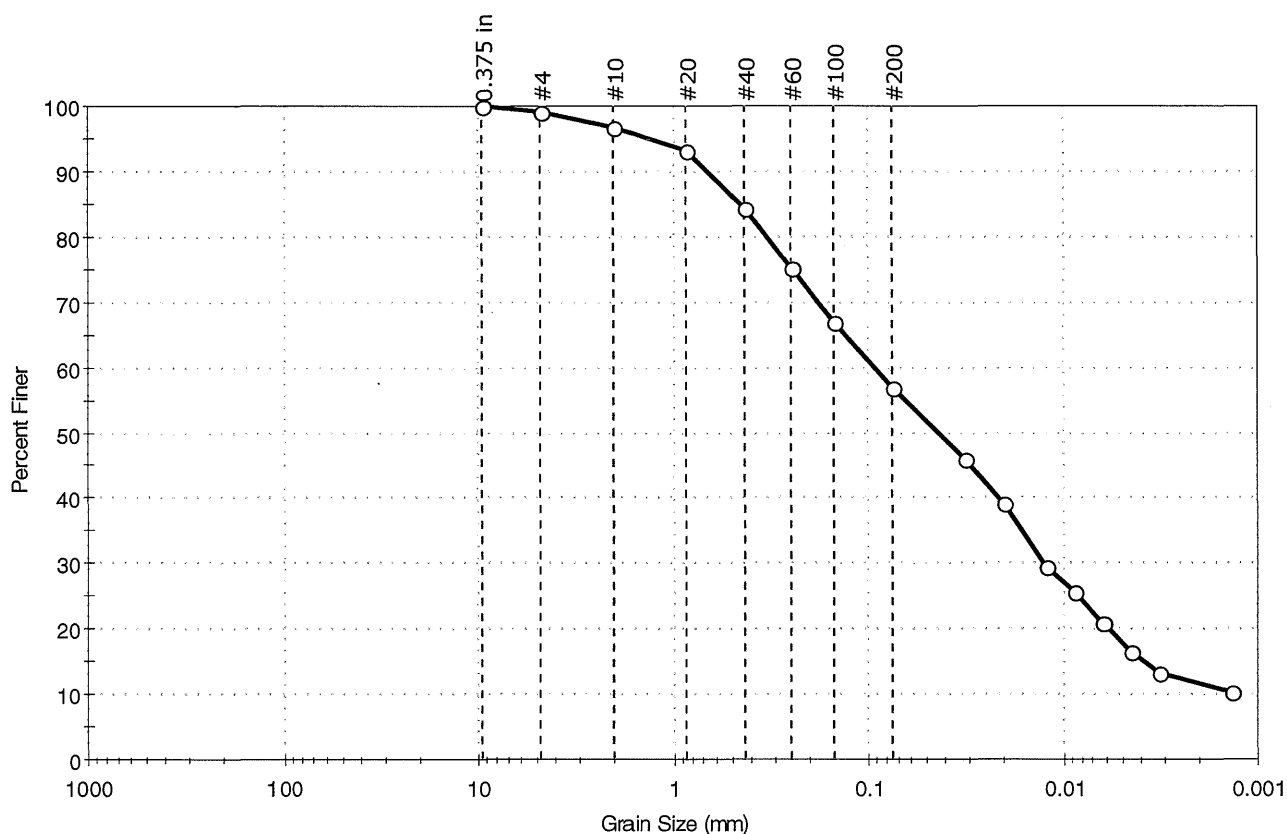
| Date | Trial # | Pressure, psi |        | Manometer Readings |                |                                | Elapsed Time, sec | Gradient | Permeability K, cm/sec | Temp, °C | R <sub>t</sub> | Permeability K @ 20 °C, cm/sec |
|------|---------|---------------|--------|--------------------|----------------|--------------------------------|-------------------|----------|------------------------|----------|----------------|--------------------------------|
|      |         | Cell          | Sample | Z <sub>1</sub>     | Z <sub>2</sub> | Z <sub>1</sub> -Z <sub>2</sub> |                   |          |                        |          |                |                                |
| 9/7  | 2       | 90            | 85     | 12.0               | 11.9           | 0.1                            | 31                | 26.0     | 1.1E-07                | 20       | 1.000          | 1.1E-07                        |
| 9/7  | 3       | 90            | 85     | 12.0               | 11.9           | 0.1                            | 35                | 26.0     | 9.7E-08                | 20       | 1.000          | 9.7E-08                        |
| 9/7  | 4       | 90            | 85     | 12.0               | 11.9           | 0.1                            | 35                | 26.0     | 9.7E-08                | 20       | 1.000          | 9.7E-08                        |
| 9/7  | 5       | 90            | 85     | 12.0               | 11.9           | 0.1                            | 37                | 26.0     | 9.2E-08                | 20       | 1.000          | 9.2E-08                        |

**PERMEABILITY AT 20° C:  $9.9 \times 10^{-8}$  cm/sec (@ 5 psi effective stress)**



|                                                                          |                       |
|--------------------------------------------------------------------------|-----------------------|
| Client: Moretrench American Corp.                                        | Project No: GTX-11659 |
| Project: Shepley Landfill                                                |                       |
| Location: Devens, MA                                                     |                       |
| Boring ID: ---                                                           | Sample Type: bag      |
| Sample ID: BFM-24                                                        | Test Date: 09/07/12   |
| Depth: ---                                                               | Test Id: 248851       |
| Test Comment: ---                                                        | Tested By: jbr        |
| Sample Description: Wet, yellowish brown sandy clay (soil-bentonite mix) | Checked By: jdt       |
| Sample Comment: ---                                                      |                       |

## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
|----------|----------|--------|--------------------|
| ---      | 0.9      | 42.1   | 57.0               |

| Sieve Name | Sieve Size, mm     | Percent Finer | Spec. Percent | Complies |
|------------|--------------------|---------------|---------------|----------|
| 0.375 in   | 9.50               | 100           |               |          |
| #4         | 4.75               | 99            |               |          |
| #10        | 2.00               | 97            |               |          |
| #20        | 0.85               | 93            |               |          |
| #40        | 0.425              | 84            |               |          |
| #60        | 0.25               | 75            |               |          |
| #100       | 0.15               | 67            |               |          |
| #200       | 0.075              | 57            |               |          |
| ---        | Particle Size (mm) | Percent Finer | Spec. Percent | Complies |
| ---        | 0.0319             | 46            |               |          |
| ---        | 0.0204             | 39            |               |          |
| ---        | 0.0123             | 30            |               |          |
| ---        | 0.0088             | 26            |               |          |
| ---        | 0.0063             | 21            |               |          |
| ---        | 0.0045             | 17            |               |          |
| ---        | 0.0032             | 13            |               |          |
| ---        | 0.0014             | 10            |               |          |

### Coefficients

|                             |                             |
|-----------------------------|-----------------------------|
| D <sub>85</sub> = 0.4423 mm | D <sub>30</sub> = 0.0126 mm |
| D <sub>60</sub> = 0.0924 mm | D <sub>15</sub> = 0.0038 mm |
| D <sub>50</sub> = 0.0433 mm | D <sub>10</sub> = 0.0012 mm |
| C <sub>u</sub> = N/A        | C <sub>c</sub> = N/A        |

### Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

### Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---



|                     |                                                      |             |     |
|---------------------|------------------------------------------------------|-------------|-----|
| Client:             | Moretrench American Corp.                            |             |     |
| Project Name:       | Shepley Landfill                                     |             |     |
| Project Location:   | Devens, MA                                           |             |     |
| GTX #:              | 11659                                                |             |     |
| Start Date:         | 9/6/2012                                             | Tested By:  | ema |
| End Date:           | 9/12/2012                                            | Checked By: | jdt |
| Boring #:           | ---                                                  |             |     |
| Sample #:           | BFM-24                                               |             |     |
| Depth:              | ---                                                  |             |     |
| Visual Description: | Wet, yellowish brown sandy clay (soil-bentonite mix) |             |     |

## Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter by ASTM D 5084 Constant Volume

Sample Type: Remolded      Permeant Fluid: De-aired Distilled water  
 Orientation: Vertical      Cell #: 19/4/5  
 Sample Preparation: Test specimen compacted with moderate effort at the as-received moisture content . Trimmings moisture content = 29%

| Parameter               | Initial | Final |
|-------------------------|---------|-------|
| Height, in              | 2.45    | 2.43  |
| Diameter, in            | 2.85    | 2.72  |
| Area, in <sup>2</sup>   | 6.38    | 5.81  |
| Volume, in <sup>3</sup> | 15.6    | 14.1  |
| Mass, g                 | 494     | 470   |
| Bulk Density, pcf       | 120     | 127   |
| Moisture Content, %     | 31.1    | 24.8  |
| Dry Density, pcf        | 91.7    | 101   |
| Degree of Saturation, % | ---     | 96    |

### B COEFFICIENT DETERMINATION

Cell Pressure, psi: 95.1      Pressure Increment, psi: 5.05  
 Sample Pressure, psi: 85.2      B Coefficient: 0.97

### FLOW DATA

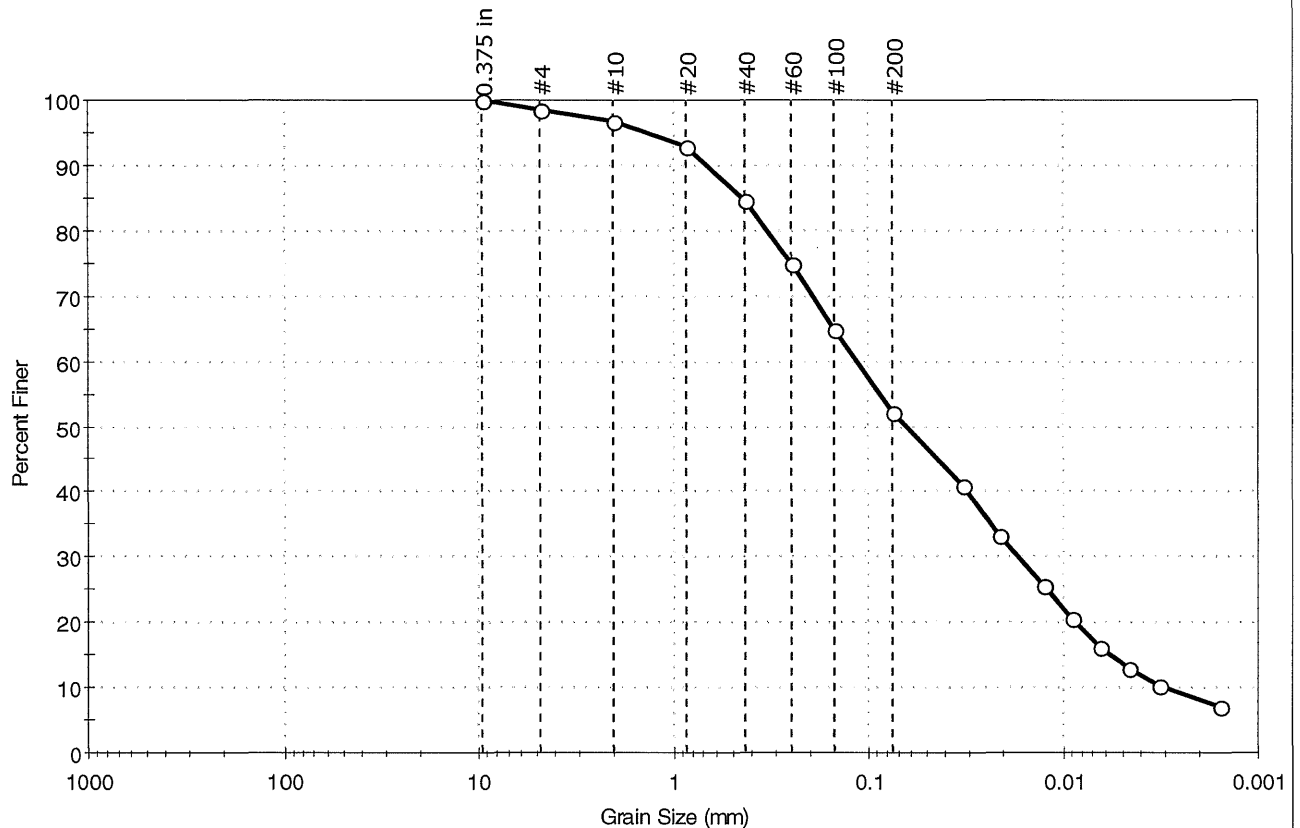
| Date | Trial # | Pressure, psi |        | Manometer Readings |                |                                | Elapsed Time, sec | Gradient | Permeability K, cm/sec | Temp, °C | R <sub>t</sub> | Permeability K @ 20 °C, cm/sec |
|------|---------|---------------|--------|--------------------|----------------|--------------------------------|-------------------|----------|------------------------|----------|----------------|--------------------------------|
|      |         | Cell          | Sample | Z <sub>1</sub>     | Z <sub>2</sub> | Z <sub>1</sub> -Z <sub>2</sub> |                   |          |                        |          |                |                                |
| 9/11 | 1       | 90            | 85     | 12.0               | 11.8           | 0.2                            | 69                | 24.5     | 1.0E-07                | 20       | 1.000          | 1.0E-07                        |
| 9/11 | 2       | 90            | 85     | 12.0               | 11.8           | 0.2                            | 71                | 24.5     | 9.7E-08                | 20       | 1.000          | 9.7E-08                        |
| 9/11 | 3       | 90            | 85     | 12.0               | 11.8           | 0.2                            | 71                | 24.5     | 9.7E-08                | 20       | 1.000          | 9.7E-08                        |
| 9/11 | 4       | 90            | 85     | 12.0               | 11.8           | 0.2                            | 72                | 24.5     | 9.6E-08                | 20       | 1.000          | 9.6E-08                        |

**PERMEABILITY AT 20° C:  $9.8 \times 10^{-8}$  cm/sec (@ 5 psi effective stress)**



|                     |                                                        |              |           |
|---------------------|--------------------------------------------------------|--------------|-----------|
| Client:             | Moretrench American Corp.                              | Project No:  | GTX-11659 |
| Project:            | Shepley Landfill                                       | Tested By:   | jbr       |
| Location:           | Devens, MA                                             | Checked By:  | jdt       |
| Boring ID:          | ---                                                    | Sample Type: | bag       |
| Sample ID:          | BFM-25                                                 | Test Date:   | 09/18/12  |
| Depth :             | ---                                                    | Test Id:     | 249682    |
| Test Comment:       | ---                                                    |              |           |
| Sample Description: | Moist, yellowish brown sandy clay (soil-bentonite mix) |              |           |
| Sample Comment:     | ---                                                    |              |           |

## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
|----------|----------|--------|--------------------|
| ---      | 1.3      | 46.5   | 52.2               |

| Sieve Name | Sieve Size, mm     | Percent Finer | Spec. Percent | Complies |
|------------|--------------------|---------------|---------------|----------|
| 0.375 in   | 9.50               | 100           |               |          |
| #4         | 4.75               | 99            |               |          |
| #10        | 2.00               | 97            |               |          |
| #20        | 0.85               | 93            |               |          |
| #40        | 0.42               | 85            |               |          |
| #60        | 0.25               | 75            |               |          |
| #100       | 0.15               | 65            |               |          |
| #200       | 0.075              | 52            |               |          |
| ---        | Particle Size (mm) | Percent Finer | Spec. Percent | Complies |
| ---        | 0.0327             | 41            |               |          |
| ---        | 0.0211             | 33            |               |          |
| ---        | 0.0124             | 26            |               |          |
| ---        | 0.0090             | 21            |               |          |
| ---        | 0.0064             | 16            |               |          |
| ---        | 0.0046             | 13            |               |          |
| ---        | 0.0033             | 10            |               |          |
| ---        | 0.0016             | 7             |               |          |

### Coefficients

|                             |                             |
|-----------------------------|-----------------------------|
| D <sub>85</sub> = 0.4376 mm | D <sub>30</sub> = 0.0168 mm |
| D <sub>60</sub> = 0.1145 mm | D <sub>15</sub> = 0.0056 mm |
| D <sub>50</sub> = 0.0638 mm | D <sub>10</sub> = 0.0030 mm |
| C <sub>u</sub> = N/A        | C <sub>c</sub> = N/A        |

### Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

### Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---



|                     |                                                        |             |     |
|---------------------|--------------------------------------------------------|-------------|-----|
| Client:             | Moretrench American Corp.                              |             |     |
| Project Name:       | Shepley Landfill                                       |             |     |
| Project Location:   | Devens, MA                                             |             |     |
| GTX #:              | 11659                                                  |             |     |
| Start Date:         | 9/18/2012                                              | Tested By:  | ema |
| End Date:           | 9/20/2012                                              | Checked By: | jdt |
| Boring #:           | ---                                                    |             |     |
| Sample #:           | BFM-25                                                 |             |     |
| Depth:              | ---                                                    |             |     |
| Visual Description: | Moist, yellowish brown sandy clay (soil-bentonite mix) |             |     |

## Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter by ASTM D 5084 Constant Volume

|                     |                                                                                                                       |                 |                          |
|---------------------|-----------------------------------------------------------------------------------------------------------------------|-----------------|--------------------------|
| Sample Type:        | Remolded                                                                                                              | Permeant Fluid: | De-aired Distilled water |
| Orientation:        | Vertical                                                                                                              | Cell #:         | 2/2/4                    |
| Sample Preparation: | Test specimen compacted with moderate effort at the as-received moisture content . Trimmings moisture content = 29.8% |                 |                          |

| Parameter               | Initial | Final |
|-------------------------|---------|-------|
| Height, in              | 2.30    | 2.21  |
| Diameter, in            | 2.85    | 2.78  |
| Area, in <sup>2</sup>   | 6.38    | 6.07  |
| Volume, in <sup>3</sup> | 14.7    | 13.4  |
| Mass, g                 | 463     | 439   |
| Bulk Density, pcf       | 120     | 124   |
| Moisture Content, %     | 29.9    | 23.2  |
| Dry Density, pcf        | 92.3    | 101   |
| Degree of Saturation, % | ---     | 96    |

### B COEFFICIENT DETERMINATION

|                       |      |                          |      |
|-----------------------|------|--------------------------|------|
| Cell Pressure, psi:   | 95.2 | Pressure Increment, psi: | 4.97 |
| Sample Pressure, psi: | 90.0 | B Coefficient:           | 0.97 |

### FLOW DATA

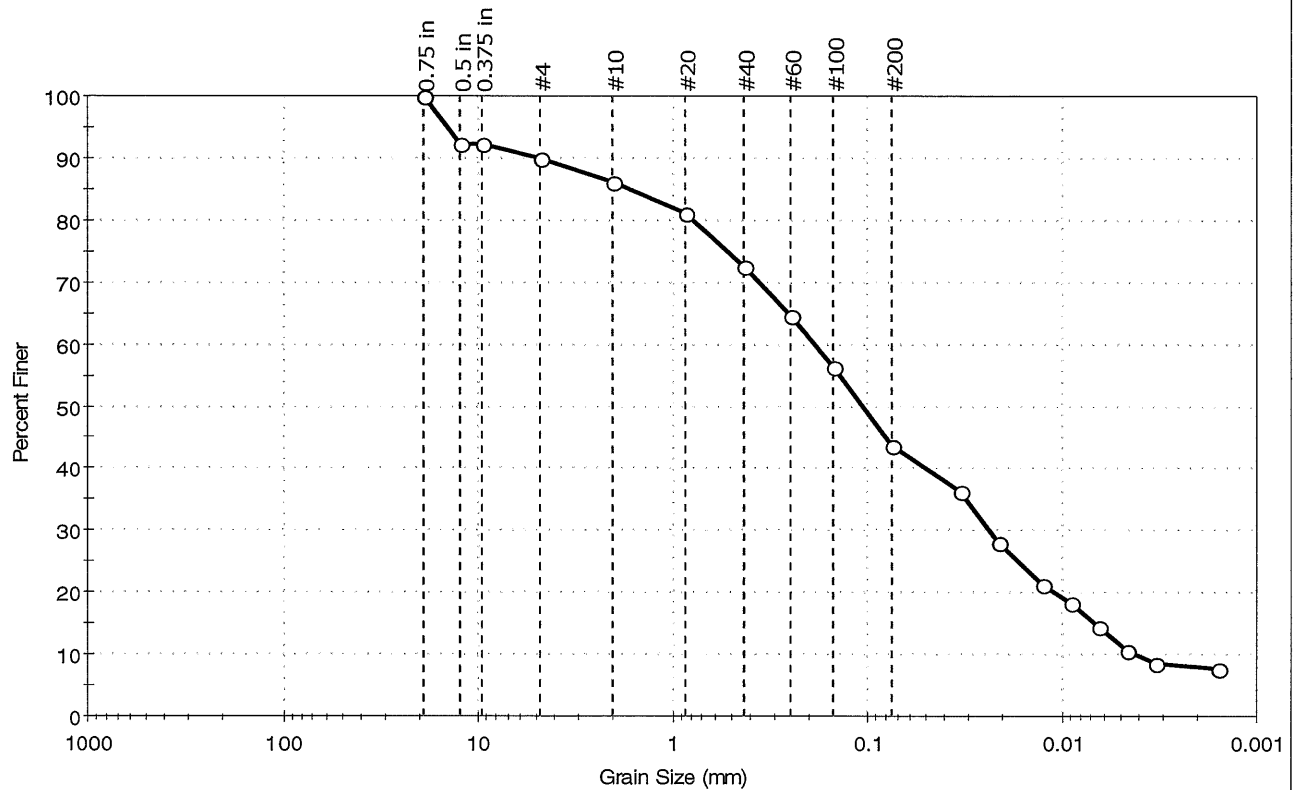
| Date | Trial # | Pressure, psi |        | Manometer Readings |                |                                | Elapsed Time, sec | Gradient | Permeability K, cm/sec | Temp, °C | R <sub>t</sub> | Permeability K @ 20 °C, cm/sec |
|------|---------|---------------|--------|--------------------|----------------|--------------------------------|-------------------|----------|------------------------|----------|----------------|--------------------------------|
|      |         | Cell          | Sample | Z <sub>1</sub>     | Z <sub>2</sub> | Z <sub>1</sub> -Z <sub>2</sub> |                   |          |                        |          |                |                                |
| 9/19 | 1       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 74                | 22.4     | 4.9E-08                | 20       | 1.000          | 4.9E-08                        |
| 9/19 | 2       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 74                | 22.4     | 4.9E-08                | 20       | 1.000          | 4.9E-08                        |
| 9/19 | 3       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 75                | 22.4     | 4.8E-08                | 20       | 1.000          | 4.8E-08                        |
| 9/19 | 4       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 79                | 22.4     | 4.5E-08                | 20       | 1.000          | 4.5E-08                        |

**PERMEABILITY AT 20° C:  $4.8 \times 10^{-8}$  cm/sec (@ 5 psi effective stress)**



|                                                                             |                       |                 |
|-----------------------------------------------------------------------------|-----------------------|-----------------|
| Client: Moretrench American Corp.                                           | Project No: GTX-11659 |                 |
| Project: Shepley Landfill                                                   |                       |                 |
| Location: Devens, MA                                                        | Sample Type: bag      | Tested By: jbr  |
| Boring ID: ---                                                              | Test Date: 09/18/12   | Checked By: jdt |
| Sample ID: BFM-27                                                           | Test Id: 249683       |                 |
| Depth: ---                                                                  |                       |                 |
| Test Comment: ---                                                           |                       |                 |
| Sample Description: Moist, yellowish brown clayey sand (soil-bentonite mix) |                       |                 |
| Sample Comment: ---                                                         |                       |                 |

## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
|----------|----------|--------|--------------------|
| ---      | 10.1     | 46.2   | 43.7               |

| Sieve Name | Sieve Size, mm     | Percent Finer | Spec. Percent | Complies |
|------------|--------------------|---------------|---------------|----------|
| 0.75 in    | 19.00              | 100           |               |          |
| 0.5 in     | 12.50              | 92            |               |          |
| 0.375 in   | 9.50               | 92            |               |          |
| #4         | 4.75               | 90            |               |          |
| #10        | 2.00               | 86            |               |          |
| #20        | 0.85               | 81            |               |          |
| #40        | 0.42               | 73            |               |          |
| #60        | 0.25               | 65            |               |          |
| #100       | 0.15               | 56            |               |          |
| #200       | 0.075              | 44            |               |          |
| ---        | Particle Size (mm) | Percent Finer | Spec. Percent | Complies |
| ---        | 0.0334             | 36            |               |          |
| ---        | 0.0213             | 28            |               |          |
| ---        | 0.0126             | 21            |               |          |
| ---        | 0.0090             | 18            |               |          |
| ---        | 0.0064             | 14            |               |          |
| ---        | 0.0046             | 11            |               |          |
| ---        | 0.0033             | 8             |               |          |
| ---        | 0.0016             | 8             |               |          |

### Coefficients

$D_{85} = 1.6310 \text{ mm}$        $D_{30} = 0.0236 \text{ mm}$   
 $D_{60} = 0.1883 \text{ mm}$        $D_{15} = 0.0067 \text{ mm}$   
 $D_{50} = 0.1062 \text{ mm}$        $D_{10} = 0.0041 \text{ mm}$   
 $C_u = \text{N/A}$        $C_c = \text{N/A}$

### Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

### Sample/Test Description

Sand/Gravel Particle Shape : **ROUNDED**  
 Sand/Gravel Hardness : **HARD**



|                     |                                                         |             |     |
|---------------------|---------------------------------------------------------|-------------|-----|
| Client:             | Moretrench American Corp.                               |             |     |
| Project Name:       | Shepley Landfill                                        |             |     |
| Project Location:   | Devens, MA                                              |             |     |
| GTX #:              | 11659                                                   |             |     |
| Start Date:         | 9/18/2012                                               | Tested By:  | ema |
| End Date:           | 9/21/2012                                               | Checked By: | jdt |
| Boring #:           | ---                                                     |             |     |
| Sample #:           | BFM-27                                                  |             |     |
| Depth:              | ---                                                     |             |     |
| Visual Description: | Moist, yellowish brown clayey sand (soil-bentonite mix) |             |     |

## Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter by ASTM D 5084 Constant Volume

|                     |                                                                                                                       |                 |                          |
|---------------------|-----------------------------------------------------------------------------------------------------------------------|-----------------|--------------------------|
| Sample Type:        | Remolded                                                                                                              | Permeant Fluid: | De-aired Distilled water |
| Orientation:        | Vertical                                                                                                              | Cell #:         | 12/2                     |
| Sample Preparation: | Test specimen compacted with moderate effort at the as-received moisture content . Trimmings moisture content = 29.4% |                 |                          |

| Parameter               | Initial | Final |
|-------------------------|---------|-------|
| Height, in              | 2.40    | 2.26  |
| Diameter, in            | 2.85    | 2.69  |
| Area, in <sup>2</sup>   | 6.38    | 5.68  |
| Volume, in <sup>3</sup> | 15.3    | 12.8  |
| Mass, g                 | 456     | 429   |
| Bulk Density, pcf       | 113     | 127   |
| Moisture Content, %     | 28.8    | 21.3  |
| Dry Density, pcf        | 87.9    | 105   |
| Degree of Saturation, % | ---     | 98    |

### B COEFFICIENT DETERMINATION

|                       |      |                          |      |
|-----------------------|------|--------------------------|------|
| Cell Pressure, psi:   | 95.1 | Pressure Increment, psi: | 5.05 |
| Sample Pressure, psi: | 90.1 | B Coefficient:           | 0.97 |

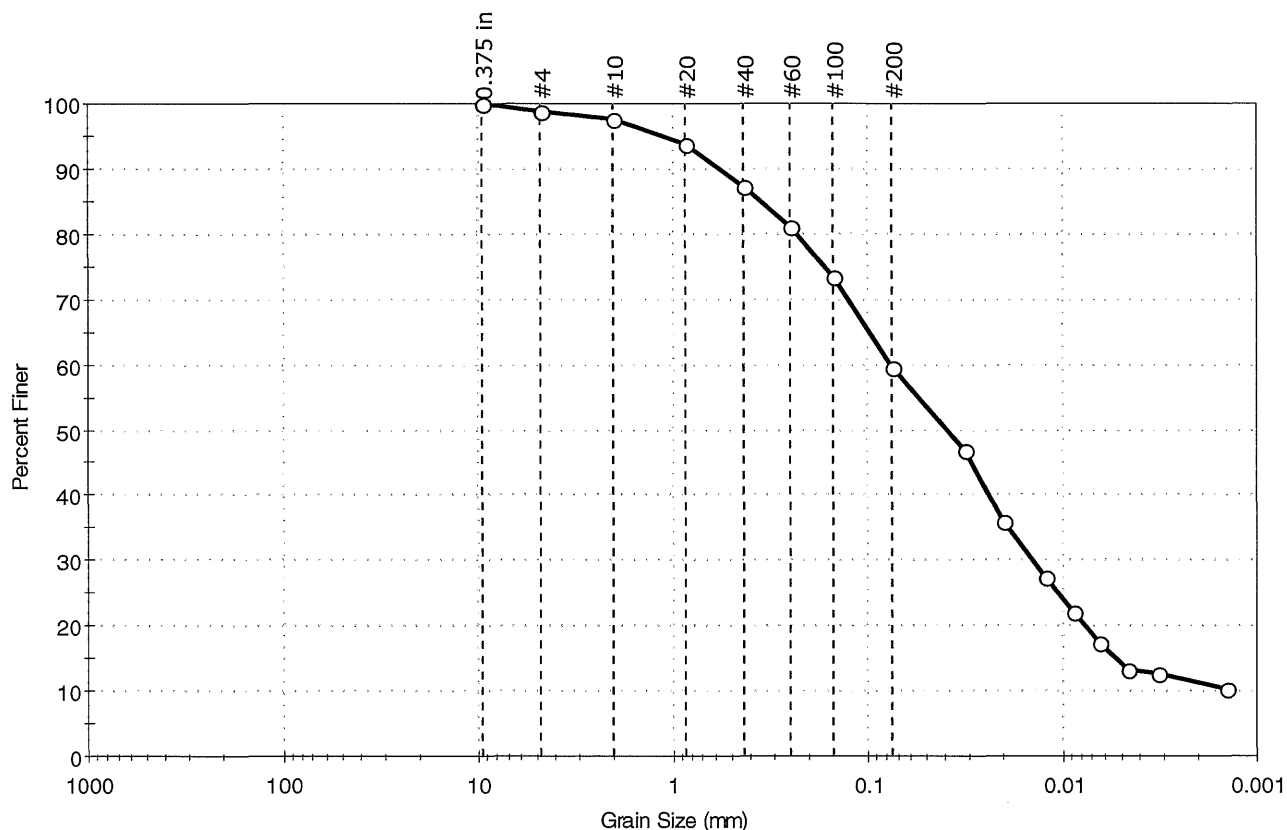
### FLOW DATA

| Date | Trial # | Pressure, psi |        | Manometer Readings |                |                                | Elapsed Time, sec | Gradient | Permeability K, cm/sec | Temp, °C | R <sub>t</sub> | Permeability K @ 20 °C, cm/sec |
|------|---------|---------------|--------|--------------------|----------------|--------------------------------|-------------------|----------|------------------------|----------|----------------|--------------------------------|
|      |         | Cell          | Sample | Z <sub>1</sub>     | Z <sub>2</sub> | Z <sub>1</sub> -Z <sub>2</sub> |                   |          |                        |          |                |                                |
| 9/20 | 1       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 59                | 21.9     | 6.7E-08                | 20       | 1.000          | 6.7E-08                        |
| 9/20 | 2       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 60                | 21.9     | 6.5E-08                | 20       | 1.000          | 6.5E-08                        |
| 9/20 | 4       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 68                | 21.9     | 5.8E-08                | 20       | 1.000          | 5.8E-08                        |
| 9/20 | 4       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 69                | 21.9     | 5.7E-08                | 20       | 1.000          | 5.7E-08                        |

**PERMEABILITY AT 20° C:  $6.2 \times 10^{-8}$  cm/sec (@ 5 psi effective stress)**

|                     |                                                        |              |           |
|---------------------|--------------------------------------------------------|--------------|-----------|
| Client:             | Moretrench American Corp.                              | Project No:  | GTX-11659 |
| Project:            | Shepley Landfill                                       | Tested By:   | jbr       |
| Location:           | Devens, MA                                             | Checked By:  | jdt       |
| Boring ID:          | ---                                                    | Sample Type: | bag       |
| Sample ID:          | BFM-29                                                 | Test Date:   | 09/18/12  |
| Depth :             | ---                                                    | Test Id:     | 249684    |
| Test Comment:       | ---                                                    |              |           |
| Sample Description: | Moist, yellowish brown sandy clay (soil-bentonite mix) |              |           |
| Sample Comment:     | ---                                                    |              |           |

## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
|----------|----------|--------|--------------------|
| ---      | 1.2      | 39.1   | 59.7               |

| Sieve Name | Sieve Size, mm     | Percent Finer | Spec. Percent | Complies |
|------------|--------------------|---------------|---------------|----------|
| 0.375 in   | 9.50               | 100           |               |          |
| #4         | 4.75               | 99            |               |          |
| #10        | 2.00               | 98            |               |          |
| #20        | 0.85               | 94            |               |          |
| #40        | 0.42               | 87            |               |          |
| #60        | 0.25               | 81            |               |          |
| #100       | 0.15               | 74            |               |          |
| #200       | 0.075              | 60            |               |          |
| ---        | Particle Size (mm) | Percent Finer | Spec. Percent | Complies |
| ---        | 0.0320             | 47            |               |          |
| ---        | 0.0204             | 36            |               |          |
| ---        | 0.0125             | 27            |               |          |
| ---        | 0.0089             | 22            |               |          |
| ---        | 0.0064             | 17            |               |          |
| ---        | 0.0046             | 13            |               |          |
| ---        | 0.0032             | 13            |               |          |
| ---        | 0.0014             | 10            |               |          |

### Coefficients

|                             |                             |
|-----------------------------|-----------------------------|
| D <sub>85</sub> = 0.3469 mm | D <sub>30</sub> = 0.0143 mm |
| D <sub>60</sub> = 0.0762 mm | D <sub>15</sub> = 0.0053 mm |
| D <sub>50</sub> = 0.0393 mm | D <sub>10</sub> = 0.0013 mm |
| C <sub>u</sub> = N/A        | C <sub>c</sub> = N/A        |

### Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

### Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---



|                     |                                                        |             |     |
|---------------------|--------------------------------------------------------|-------------|-----|
| Client:             | Moretrench American Corp.                              |             |     |
| Project Name:       | Shepley Landfill                                       |             |     |
| Project Location:   | Devens, MA                                             |             |     |
| GTX #:              | 11659                                                  |             |     |
| Start Date:         | 9/18/2012                                              | Tested By:  | ema |
| End Date:           | 9/20/2012                                              | Checked By: | jdt |
| Boring #:           | ---                                                    |             |     |
| Sample #:           | BFM-29                                                 |             |     |
| Depth:              | ---                                                    |             |     |
| Visual Description: | Moist, yellowish brown sandy clay (soil-bentonite mix) |             |     |

## Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter by ASTM D 5084 Constant Volume

|                     |                                                                                                                       |                 |                          |
|---------------------|-----------------------------------------------------------------------------------------------------------------------|-----------------|--------------------------|
| Sample Type:        | Remolded                                                                                                              | Permeant Fluid: | De-aired Distilled water |
| Orientation:        | Vertical                                                                                                              | Cell #:         | 19/4/5                   |
| Sample Preparation: | Test specimen compacted with moderate effort at the as-received moisture content . Trimmings moisture content = 27.3% |                 |                          |

| Parameter               | Initial | Final |
|-------------------------|---------|-------|
| Height, in              | 2.53    | 2.42  |
| Diameter, in            | 2.85    | 2.73  |
| Area, in <sup>2</sup>   | 6.38    | 5.85  |
| Volume, in <sup>3</sup> | 16.1    | 14.2  |
| Mass, g                 | 524     | 484   |
| Bulk Density, pcf       | 123     | 130   |
| Moisture Content, %     | 28.1    | 18.2  |
| Dry Density, pcf        | 96.4    | 110   |
| Degree of Saturation, % | ---     | 95    |

### B COEFFICIENT DETERMINATION

|                       |      |                          |      |
|-----------------------|------|--------------------------|------|
| Cell Pressure, psi:   | 95.1 | Pressure Increment, psi: | 5.01 |
| Sample Pressure, psi: | 90.0 | B Coefficient:           | 0.97 |

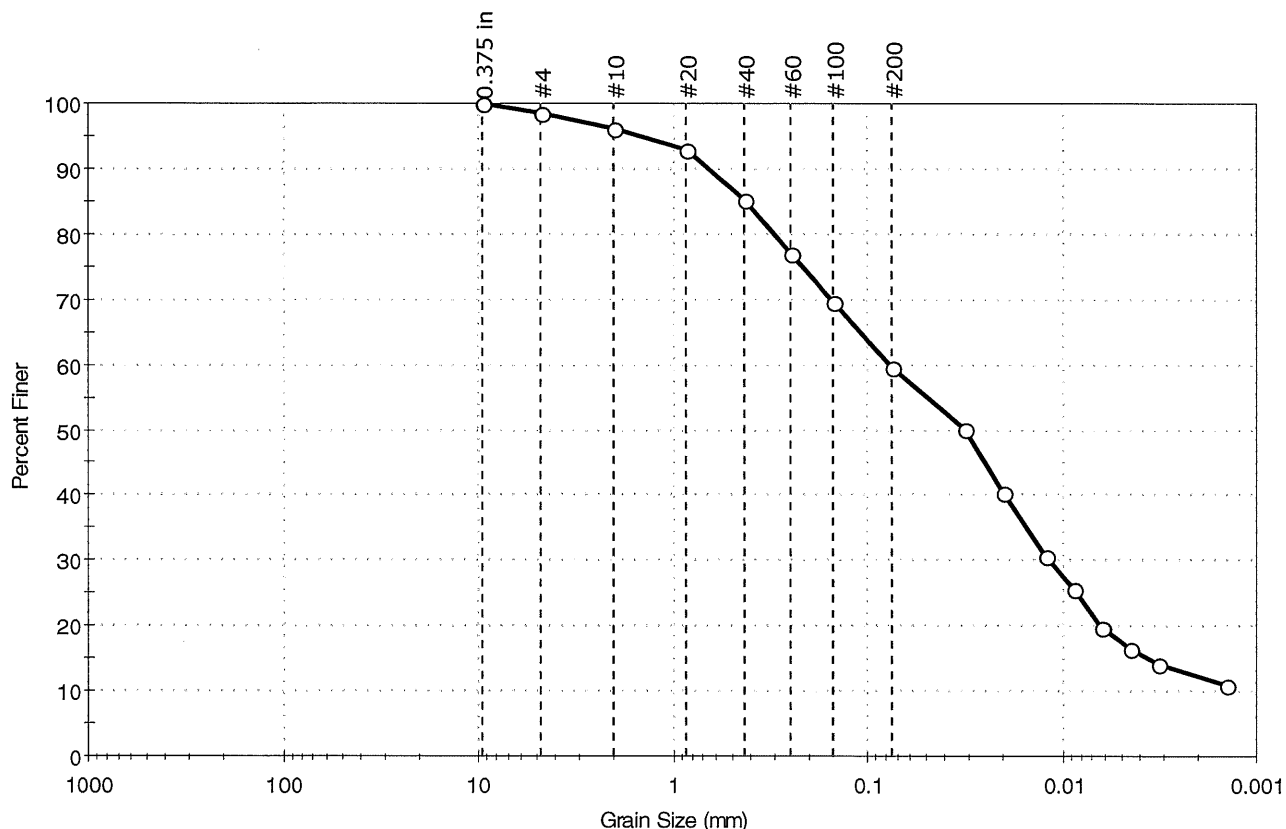
### FLOW DATA

| Date | Trial # | Pressure, psi |        | Manometer Readings |                |                                | Elapsed Time, sec | Gradient | Permeability K, cm/sec | Temp, °C | R <sub>t</sub> | Permeability K @ 20 °C, cm/sec |
|------|---------|---------------|--------|--------------------|----------------|--------------------------------|-------------------|----------|------------------------|----------|----------------|--------------------------------|
|      |         | Cell          | Sample | Z <sub>1</sub>     | Z <sub>2</sub> | Z <sub>1</sub> -Z <sub>2</sub> |                   |          |                        |          |                |                                |
| 9/19 | 1       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 56                | 20.5     | 7.3E-08                | 20       | 1.000          | 7.3E-08                        |
| 9/19 | 2       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 57                | 20.5     | 7.2E-08                | 20       | 1.000          | 7.2E-08                        |
| 9/19 | 3       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 58                | 20.5     | 7.0E-08                | 20       | 1.000          | 7.0E-08                        |
| 9/19 | 4       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 59                | 20.5     | 6.9E-08                | 20       | 1.000          | 6.9E-08                        |

**PERMEABILITY AT 20° C:  $7.1 \times 10^{-8}$  cm/sec (@ 5 psi effective stress)**

|                     |                                                        |              |           |
|---------------------|--------------------------------------------------------|--------------|-----------|
| Client:             | Moretrench American Corp.                              | Project No:  | GTX-11659 |
| Project:            | Shepley Landfill                                       | Tested By:   | jbr       |
| Location:           | Devens, MA                                             | Checked By:  | jdt       |
| Boring ID:          | ---                                                    | Sample Type: | bag       |
| Sample ID:          | BFM-31                                                 | Test Date:   | 09/19/12  |
| Depth :             | ---                                                    | Test Id:     | 249685    |
| Test Comment:       | ---                                                    |              |           |
| Sample Description: | Moist, yellowish brown sandy clay (soil-bentonite mix) |              |           |
| Sample Comment:     | ---                                                    |              |           |

## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
|----------|----------|--------|--------------------|
| --       | 1.6      | 38.7   | 59.7               |

| Sieve Name | Sieve Size, mm     | Percent Finer | Spec. Percent | Complies |
|------------|--------------------|---------------|---------------|----------|
| 0.375 in   | 9.50               | 100           |               |          |
| #4         | 4.75               | 98            |               |          |
| #10        | 2.00               | 96            |               |          |
| #20        | 0.85               | 93            |               |          |
| #40        | 0.42               | 85            |               |          |
| #60        | 0.25               | 77            |               |          |
| #100       | 0.15               | 70            |               |          |
| #200       | 0.075              | 60            |               |          |
| ---        | Particle Size (mm) | Percent Finer | Spec. Percent | Complies |
| ---        | 0.0318             | 50            |               |          |
| ---        | 0.0204             | 40            |               |          |
| ---        | 0.0123             | 31            |               |          |
| ---        | 0.0088             | 26            |               |          |
| ---        | 0.0063             | 20            |               |          |
| ---        | 0.0045             | 17            |               |          |
| ---        | 0.0032             | 14            |               |          |
| ---        | 0.0014             | 11            |               |          |

| Coefficients                |                             |
|-----------------------------|-----------------------------|
| D <sub>85</sub> = 0.4159 mm | D <sub>30</sub> = 0.0118 mm |
| D <sub>60</sub> = 0.0767 mm | D <sub>15</sub> = 0.0037 mm |
| D <sub>50</sub> = 0.0315 mm | D <sub>10</sub> = 0.0012 mm |
| C <sub>u</sub> = N/A        | C <sub>c</sub> = N/A        |

| Classification |                       |
|----------------|-----------------------|
| ASTM           | N/A                   |
| AASHTO         | Silty Soils (A-4 (0)) |

| Sample/Test Description          |
|----------------------------------|
| Sand/Gravel Particle Shape : --- |
| Sand/Gravel Hardness : ---       |



|                     |                                                        |             |     |
|---------------------|--------------------------------------------------------|-------------|-----|
| Client:             | Moretrench American Corp.                              |             |     |
| Project Name:       | Shepley Landfill                                       |             |     |
| Project Location:   | Devens, MA                                             |             |     |
| GTX #:              | 11659                                                  |             |     |
| Start Date:         | 9/19/2012                                              | Tested By:  | ema |
| End Date:           | 9/21/2012                                              | Checked By: | jdt |
| Boring #:           | ---                                                    |             |     |
| Sample #:           | BFM-31                                                 |             |     |
| Depth:              | ---                                                    |             |     |
| Visual Description: | Moist, yellowish brown sandy clay (soil-bentonite mix) |             |     |

## Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter by ASTM D 5084 Constant Volume

Sample Type:

Remolded

Permeant Fluid:

De-aired Distilled water

Orientation:

Vertical

Cell #:

16/5/11

Sample Preparation:

Test specimen compacted with moderate effort at the as-received moisture content . Trimmings moisture content = 31.5%

| Parameter               | Initial | Final |
|-------------------------|---------|-------|
| Height, in              | 2.74    | 2.48  |
| Diameter, in            | 2.85    | 2.71  |
| Area, in <sup>2</sup>   | 6.38    | 5.77  |
| Volume, in <sup>3</sup> | 17.5    | 14.3  |
| Mass, g                 | 525     | 483   |
| Bulk Density, pcf       | 114     | 128   |
| Moisture Content, %     | 31.3    | 20.8  |
| Dry Density, pcf        | 86.9    | 106   |
| Degree of Saturation, % | ---     | 99    |

### B COEFFICIENT DETERMINATION

|                       |      |                          |      |
|-----------------------|------|--------------------------|------|
| Cell Pressure, psi:   | 95.1 | Pressure Increment, psi: | 5.02 |
| Sample Pressure, psi: | 90.0 | B Coefficient:           | 0.95 |

### FLOW DATA

| Date | Trial # | Pressure, psi |        | Manometer Readings |                |                                | Elapsed Time, sec | Gradient | Permeability K, cm/sec | Temp, °C | R <sub>t</sub> | Permeability K @ 20 °C, cm/sec |
|------|---------|---------------|--------|--------------------|----------------|--------------------------------|-------------------|----------|------------------------|----------|----------------|--------------------------------|
|      |         | Cell          | Sample | Z <sub>1</sub>     | Z <sub>2</sub> | Z <sub>1</sub> -Z <sub>2</sub> |                   |          |                        |          |                |                                |
| 9/20 | 2       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 121               | 20.0     | 3.5E-08                | 20       | 1.000          | 3.5E-08                        |
| 9/20 | 3       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 129               | 20.0     | 3.3E-08                | 20       | 1.000          | 3.3E-08                        |
| 9/20 | 4       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 131               | 20.0     | 3.2E-08                | 20       | 1.000          | 3.2E-08                        |
| 9/20 | 5       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 132               | 20.0     | 3.2E-08                | 20       | 1.000          | 3.2E-08                        |

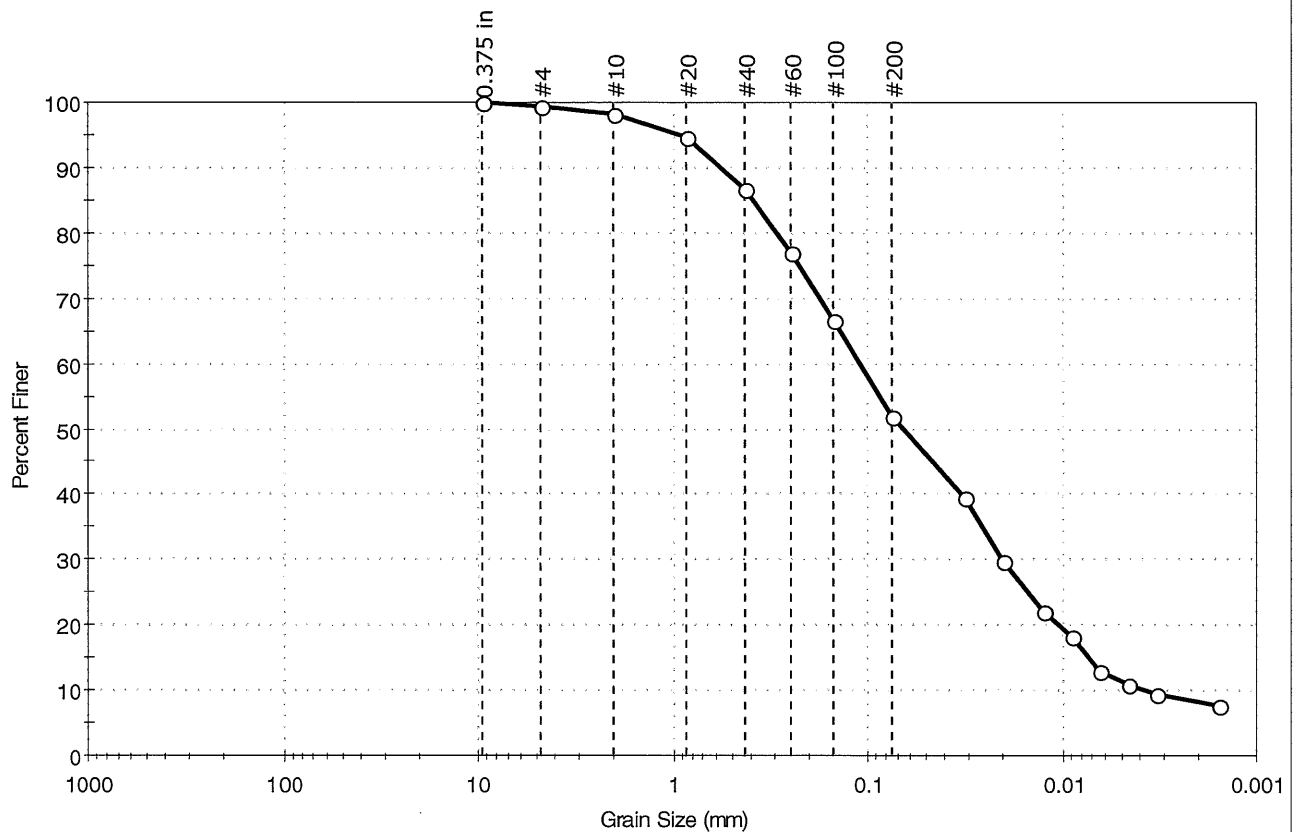
**PERMEABILITY AT 20° C:  $3.3 \times 10^{-8}$  cm/sec (@ 5 psi effective stress)**





|                                                                            |                       |                 |
|----------------------------------------------------------------------------|-----------------------|-----------------|
| Client: Moretrench American Corp.                                          | Project No: GTX-11659 |                 |
| Project: Shepley Landfill                                                  |                       |                 |
| Location: Devens, MA                                                       | Sample Type: bag      | Tested By: jbr  |
| Boring ID: ---                                                             | Test Date: 09/18/12   | Checked By: jdt |
| Sample ID: BFM-34                                                          | Test Id: 249686       |                 |
| Depth: ---                                                                 |                       |                 |
| Test Comment: ---                                                          |                       |                 |
| Sample Description: Moist, yellowish brown sandy clay (soil-bentonite mix) |                       |                 |
| Sample Comment: ---                                                        |                       |                 |

## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
|----------|----------|--------|--------------------|
| ---      | 0.6      | 47.4   | 52.0               |

| Sieve Name | Sieve Size, mm     | Percent Finer | Spec. Percent | Complies |
|------------|--------------------|---------------|---------------|----------|
| 0.375 in   | 9.50               | 100           |               |          |
| #4         | 4.75               | 99            |               |          |
| #10        | 2.00               | 98            |               |          |
| #20        | 0.85               | 95            |               |          |
| #40        | 0.42               | 87            |               |          |
| #60        | 0.25               | 77            |               |          |
| #100       | 0.15               | 67            |               |          |
| #200       | 0.075              | 52            |               |          |
| ---        | Particle Size (mm) | Percent Finer | Spec. Percent | Complies |
| ---        | 0.0315             | 40            |               |          |
| ---        | 0.0204             | 30            |               |          |
| ---        | 0.0125             | 22            |               |          |
| ---        | 0.0090             | 18            |               |          |
| ---        | 0.0065             | 13            |               |          |
| ---        | 0.0046             | 11            |               |          |
| ---        | 0.0033             | 9             |               |          |
| ---        | 0.0016             | 8             |               |          |

### Coefficients

$D_{85} = 0.3877 \text{ mm}$        $D_{30} = 0.0207 \text{ mm}$   
 $D_{60} = 0.1095 \text{ mm}$        $D_{15} = 0.0073 \text{ mm}$   
 $D_{50} = 0.0653 \text{ mm}$        $D_{10} = 0.0038 \text{ mm}$   
 $C_u = \text{N/A}$        $C_c = \text{N/A}$

### Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

### Sample/Test Description

Sand/Gravel Particle Shape : ---  
 Sand/Gravel Hardness : ---



|                     |                                                        |             |     |
|---------------------|--------------------------------------------------------|-------------|-----|
| Client:             | Moretrench American Corp.                              |             |     |
| Project Name:       | Shepley Landfill                                       |             |     |
| Project Location:   | Devens, MA                                             |             |     |
| GTX #:              | 11659                                                  |             |     |
| Start Date:         | 9/18/2012                                              | Tested By:  | ema |
| End Date:           | 9/20/2012                                              | Checked By: | jdt |
| Boring #:           | ---                                                    |             |     |
| Sample #:           | BFM-34                                                 |             |     |
| Depth:              | ---                                                    |             |     |
| Visual Description: | Moist, yellowish brown sandy clay (soil-bentonite mix) |             |     |

## Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter by ASTM D 5084 Constant Volume

Sample Type:

Remolded

Permeant Fluid:

De-aired Distilled water

Orientation:

Vertical

Cell #:

3/9

Sample Preparation:

Test specimen compacted with moderate effort at the as-received moisture content . Trimmings moisture content = 29.0%

| Parameter               | Initial | Final |
|-------------------------|---------|-------|
| Height, in              | 2.68    | 2.51  |
| Diameter, in            | 2.85    | 2.79  |
| Area, in <sup>2</sup>   | 6.38    | 6.11  |
| Volume, in <sup>3</sup> | 17.1    | 15.3  |
| Mass, g                 | 530     | 507   |
| Bulk Density, pcf       | 118     | 126   |
| Moisture Content, %     | 28.6    | 23.0  |
| Dry Density, pcf        | 91.6    | 102   |
| Degree of Saturation, % | ---     | 98    |

### B COEFFICIENT DETERMINATION

|                       |      |                          |      |
|-----------------------|------|--------------------------|------|
| Cell Pressure, psi:   | 95.2 | Pressure Increment, psi: | 5.05 |
| Sample Pressure, psi: | 90.1 | B Coefficient:           | 0.99 |

### FLOW DATA

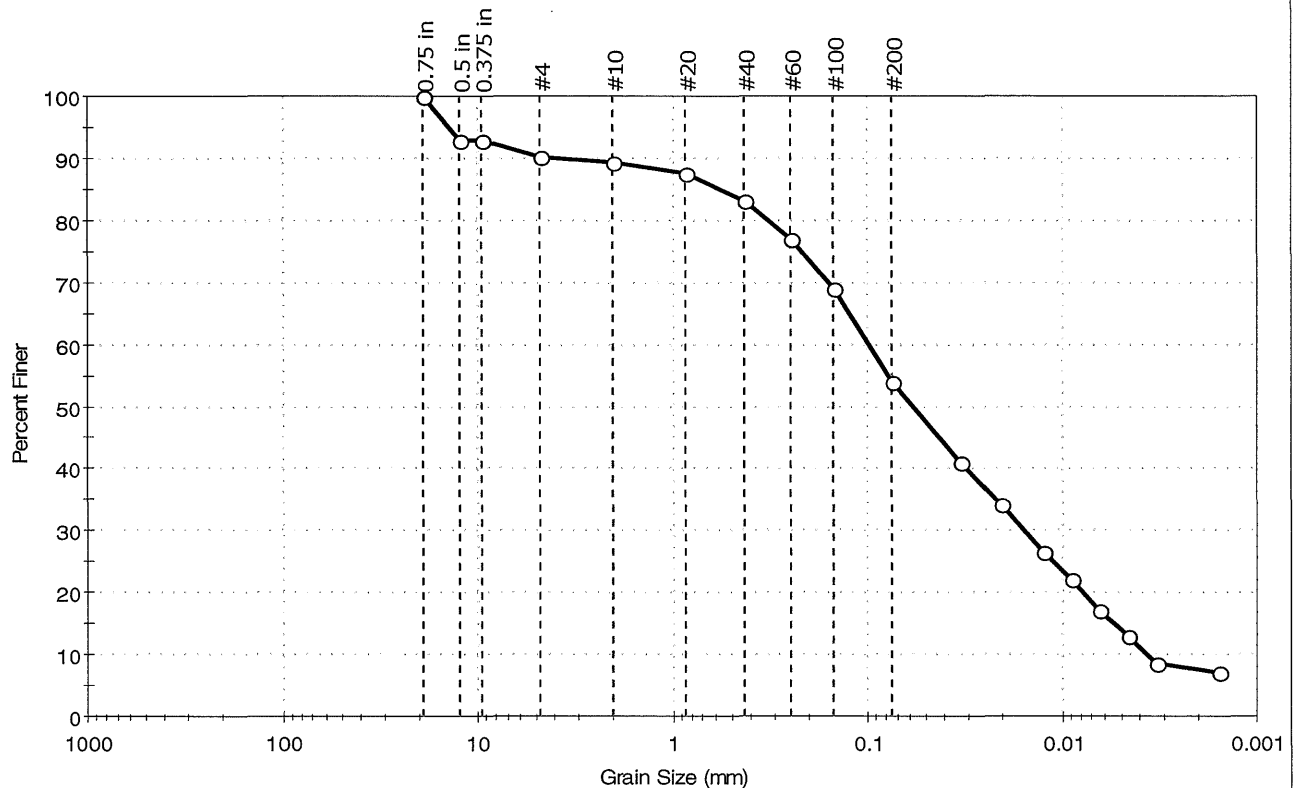
| Date | Trial # | Pressure, psi |        | Manometer Readings |                |                                | Elapsed Time, sec | Gradient | Permeability K, cm/sec | Temp, °C | R <sub>t</sub> | Permeability K @ 20 °C, cm/sec |
|------|---------|---------------|--------|--------------------|----------------|--------------------------------|-------------------|----------|------------------------|----------|----------------|--------------------------------|
|      |         | Cell          | Sample | Z <sub>1</sub>     | Z <sub>2</sub> | Z <sub>1</sub> -Z <sub>2</sub> |                   |          |                        |          |                |                                |
| 9/19 | 1       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 43                | 19.8     | 9.4E-08                | 20       | 1.000          | 9.4E-08                        |
| 9/19 | 2       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 44                | 19.8     | 9.2E-08                | 20       | 1.000          | 9.2E-08                        |
| 9/19 | 3       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 47                | 19.8     | 8.6E-08                | 20       | 1.000          | 8.6E-08                        |
| 9/19 | 4       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 49                | 19.8     | 8.3E-08                | 20       | 1.000          | 8.3E-08                        |

**PERMEABILITY AT 20° C:  $8.9 \times 10^{-8}$  cm/sec (@ 5 psi effective stress)**



|                                                                            |                       |                 |
|----------------------------------------------------------------------------|-----------------------|-----------------|
| Client: Moretrench American Corp.                                          | Project No: GTX-11659 |                 |
| Project: Shepley Landfill                                                  |                       |                 |
| Location: Devens, MA                                                       | Sample Type: bag      | Tested By: jbr  |
| Boring ID: ---                                                             | Test Date: 09/19/12   | Checked By: jdt |
| Sample ID: BFM-37                                                          | Test Id: 249687       |                 |
| Depth: ---                                                                 |                       |                 |
| Test Comment: ---                                                          |                       |                 |
| Sample Description: Moist, yellowish brown sandy clay (soil-bentonite mix) |                       |                 |
| Sample Comment: ---                                                        |                       |                 |

## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
|----------|----------|--------|--------------------|
| ---      | 9.8      | 36.2   | 54.0               |

| Sieve Name | Sieve Size, mm     | Percent Finer | Spec. Percent | Complies |
|------------|--------------------|---------------|---------------|----------|
| 0.75 in    | 19.00              | 100           |               |          |
| 0.5 in     | 12.50              | 93            |               |          |
| 0.375 in   | 9.50               | 93            |               |          |
| #4         | 4.75               | 90            |               |          |
| #10        | 2.00               | 90            |               |          |
| #20        | 0.85               | 88            |               |          |
| #40        | 0.42               | 83            |               |          |
| #60        | 0.25               | 77            |               |          |
| #100       | 0.15               | 69            |               |          |
| #200       | 0.075              | 54            |               |          |
| ---        | Particle Size (mm) | Percent Finer | Spec. Percent | Complies |
| ---        | 0.0334             | 41            |               |          |
| ---        | 0.0205             | 34            |               |          |
| ---        | 0.0125             | 26            |               |          |
| ---        | 0.0090             | 22            |               |          |
| ---        | 0.0064             | 17            |               |          |
| ---        | 0.0046             | 13            |               |          |
| ---        | 0.0033             | 9             |               |          |
| ---        | 0.0016             | 7             |               |          |

### Coefficients

$D_{85} = 0.5673$  mm       $D_{30} = 0.0157$  mm  
 $D_{60} = 0.0990$  mm       $D_{15} = 0.0054$  mm  
 $D_{50} = 0.0585$  mm       $D_{10} = 0.0037$  mm  
 $C_u = N/A$        $C_c = N/A$

### Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

### Sample/Test Description

Sand/Gravel Particle Shape : **ROUNDED**  
 Sand/Gravel Hardness : **HARD**



|                     |                                                        |             |     |
|---------------------|--------------------------------------------------------|-------------|-----|
| Client:             | Moretrench American Corp.                              |             |     |
| Project Name:       | Shepley Landfill                                       |             |     |
| Project Location:   | Devens, MA                                             |             |     |
| GTX #:              | 11659                                                  |             |     |
| Start Date:         | 9/19/2012                                              | Tested By:  | ema |
| End Date:           | 9/25/2012                                              | Checked By: | jdt |
| Boring #:           | ---                                                    |             |     |
| Sample #:           | BFM-37                                                 |             |     |
| Depth:              | ---                                                    |             |     |
| Visual Description: | Moist, yellowish brown sandy clay (soil-bentonite mix) |             |     |

## Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter by ASTM D 5084 Constant Volume

Sample Type:

Remolded

Permeant Fluid:

De-aired Distilled water

Orientation:

Vertical

Cell #:

8/9/3

Sample Preparation:

Test specimen compacted with moderate effort at the as-received moisture content . Trimmings moisture content = 31.3%

| Parameter               | Initial | Final |
|-------------------------|---------|-------|
| Height, in              | 2.72    | 2.68  |
| Diameter, in            | 2.85    | 2.75  |
| Area, in <sup>2</sup>   | 6.38    | 5.94  |
| Volume, in <sup>3</sup> | 17.4    | 15.9  |
| Mass, g                 | 565     | 533   |
| Bulk Density, pcf       | 124     | 127   |
| Moisture Content, %     | 28.4    | 21.0  |
| Dry Density, pcf        | 96.4    | 105   |
| Degree of Saturation, % | ---     | 97    |

### B COEFFICIENT DETERMINATION

|                       |      |                          |      |
|-----------------------|------|--------------------------|------|
| Cell Pressure, psi:   | 95.1 | Pressure Increment, psi: | 5.05 |
| Sample Pressure, psi: | 90.1 | B Coefficient:           | 0.98 |

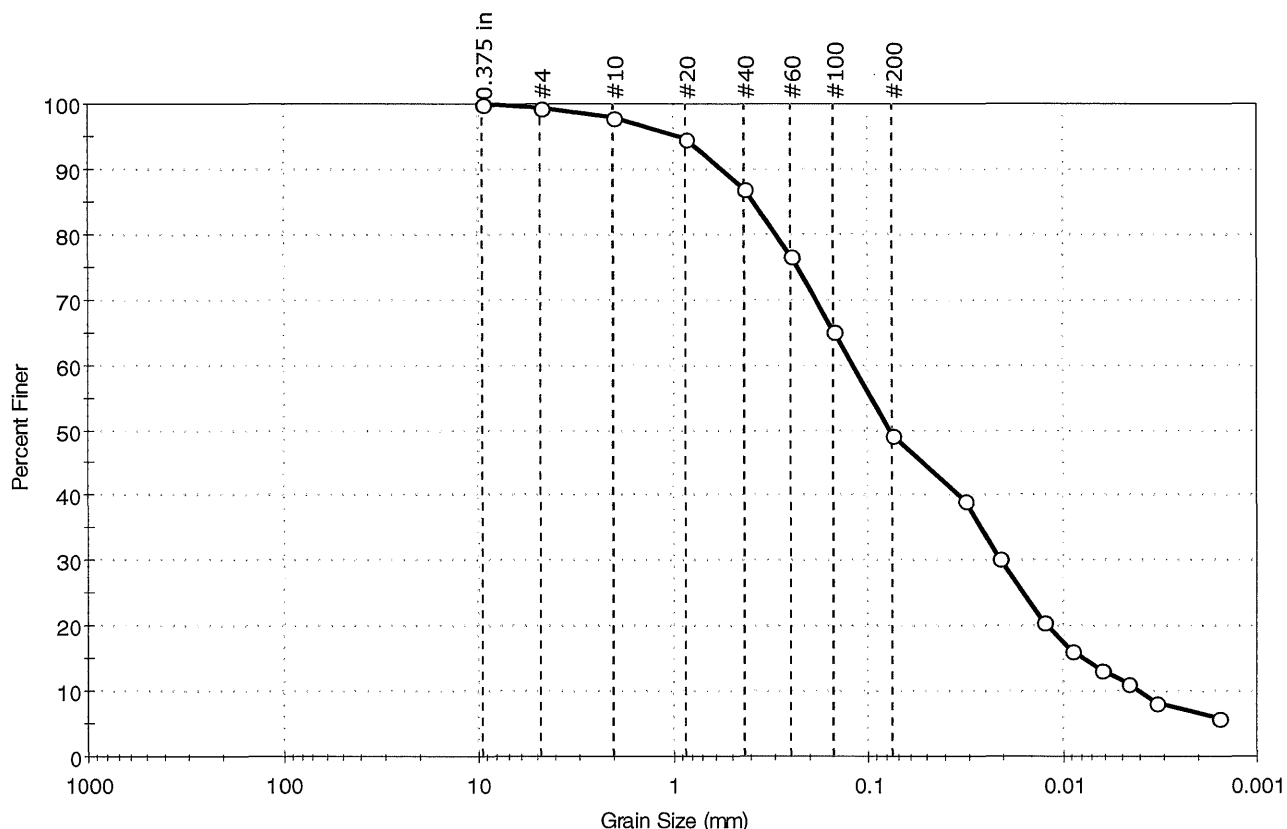
### FLOW DATA

| Date | Trial # | Pressure, psi |        | Manometer Readings |                |                                | Elapsed Time, sec | Gradient | Permeability K, cm/sec | Temp, °C | R <sub>t</sub> | Permeability K @ 20 °C, cm/sec |
|------|---------|---------------|--------|--------------------|----------------|--------------------------------|-------------------|----------|------------------------|----------|----------------|--------------------------------|
|      |         | Cell          | Sample | Z <sub>1</sub>     | Z <sub>2</sub> | Z <sub>1</sub> -Z <sub>2</sub> |                   |          |                        |          |                |                                |
| 9/24 | 1       | 90            | 85     | 10.0               | 9.8            | 0.2                            | 114               | 18.5     | 7.9E-08                | 20       | 1.000          | 7.9E-08                        |
| 9/24 | 2       | 90            | 85     | 10.0               | 9.8            | 0.2                            | 120               | 18.5     | 7.5E-08                | 20       | 1.000          | 7.5E-08                        |
| 9/24 | 3       | 90            | 85     | 10.0               | 9.8            | 0.2                            | 131               | 18.5     | 6.8E-08                | 20       | 1.000          | 6.8E-08                        |
| 9/24 | 4       | 90            | 85     | 10.0               | 9.8            | 0.2                            | 137               | 18.5     | 6.5E-08                | 20       | 1.000          | 6.5E-08                        |

**PERMEABILITY AT 20° C:  $7.2 \times 10^{-8}$  cm/sec (@ 5 psi effective stress)**

|                     |                                                         |              |           |
|---------------------|---------------------------------------------------------|--------------|-----------|
| Client:             | Moretrench American Corp.                               | Project No:  | GTX-11659 |
| Project:            | Shepley Landfill                                        | Tested By:   | jbr       |
| Location:           | Devens, MA                                              | Checked By:  | jdt       |
| Boring ID:          | ---                                                     | Sample Type: | bag       |
| Sample ID:          | BFM-39                                                  | Test Date:   | 09/18/12  |
| Depth :             | ---                                                     | Test Id:     | 249688    |
| Test Comment:       | ---                                                     |              |           |
| Sample Description: | Moist, yellowish brown clayey sand (soil-bentonite mix) |              |           |
| Sample Comment:     | ---                                                     |              |           |

## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
|----------|----------|--------|--------------------|
| --       | 0.5      | 50.1   | 49.4               |

| Sieve Name | Sieve Size, mm     | Percent Finer | Spec. Percent | Complies |
|------------|--------------------|---------------|---------------|----------|
| 0.375 in   | 9.50               | 100           |               |          |
| #4         | 4.75               | 99            |               |          |
| #10        | 2.00               | 98            |               |          |
| #20        | 0.85               | 95            |               |          |
| #40        | 0.42               | 87            |               |          |
| #60        | 0.25               | 77            |               |          |
| #100       | 0.15               | 65            |               |          |
| #200       | 0.075              | 49            |               |          |
| ---        | Particle Size (mm) | Percent Finer | Spec. Percent | Complies |
| ---        | 0.0317             | 39            |               |          |
| ---        | 0.0212             | 30            |               |          |
| ---        | 0.0126             | 21            |               |          |
| ---        | 0.0091             | 16            |               |          |
| ---        | 0.0063             | 13            |               |          |
| ---        | 0.0046             | 11            |               |          |
| ---        | 0.0033             | 8             |               |          |
| ---        | 0.0016             | 6             |               |          |

### Coefficients

|                             |                             |
|-----------------------------|-----------------------------|
| D <sub>85</sub> = 0.3821 mm | D <sub>30</sub> = 0.0208 mm |
| D <sub>60</sub> = 0.1195 mm | D <sub>15</sub> = 0.0077 mm |
| D <sub>50</sub> = 0.0771 mm | D <sub>10</sub> = 0.0040 mm |
| C <sub>u</sub> = N/A        | C <sub>c</sub> = N/A        |

### Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

### Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---



|                     |                                                         |             |     |
|---------------------|---------------------------------------------------------|-------------|-----|
| Client:             | Moretrench American Corp.                               |             |     |
| Project Name:       | Shepley Landfill                                        |             |     |
| Project Location:   | Devens, MA                                              |             |     |
| GTX #:              | 11659                                                   |             |     |
| Start Date:         | 9/18/2012                                               | Tested By:  | ema |
| End Date:           | 9/20/2012                                               | Checked By: | jdt |
| Boring #:           | ---                                                     |             |     |
| Sample #:           | BFM-39                                                  |             |     |
| Depth:              | ---                                                     |             |     |
| Visual Description: | Moist, yellowish brown clayey sand (soil-bentonite mix) |             |     |

## Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter by ASTM D 5084 Constant Volume

|                     |                                                                                                                       |                 |                          |
|---------------------|-----------------------------------------------------------------------------------------------------------------------|-----------------|--------------------------|
| Sample Type:        | Remolded                                                                                                              | Permeant Fluid: | De-aired Distilled water |
| Orientation:        | Vertical                                                                                                              | Cell #:         | 9/7/14                   |
| Sample Preparation: | Test specimen compacted with moderate effort at the as-received moisture content . Trimmings moisture content = 28.4% |                 |                          |

| Parameter               | Initial | Final |
|-------------------------|---------|-------|
| Height, in              | 2.38    | 2.41  |
| Diameter, in            | 2.85    | 2.74  |
| Area, in <sup>2</sup>   | 6.38    | 5.90  |
| Volume, in <sup>3</sup> | 15.2    | 14.2  |
| Mass, g                 | 516     | 491   |
| Bulk Density, pcf       | 129     | 131   |
| Moisture Content, %     | 28.6    | 22.4  |
| Dry Density, pcf        | 100     | 107   |
| Degree of Saturation, % | ---     | 99    |

### B COEFFICIENT DETERMINATION

|                       |      |                          |      |
|-----------------------|------|--------------------------|------|
| Cell Pressure, psi:   | 95.1 | Pressure Increment, psi: | 5.07 |
| Sample Pressure, psi: | 90.2 | B Coefficient:           | 1.00 |

### FLOW DATA

| Date | Trial # | Pressure, psi |        | Manometer Readings |                |                                | Elapsed Time, sec | Gradient | Permeability K, cm/sec | Temp, °C | R <sub>t</sub> | Permeability K @ 20 °C, cm/sec |
|------|---------|---------------|--------|--------------------|----------------|--------------------------------|-------------------|----------|------------------------|----------|----------------|--------------------------------|
|      |         | Cell          | Sample | Z <sub>1</sub>     | Z <sub>2</sub> | Z <sub>1</sub> -Z <sub>2</sub> |                   |          |                        |          |                |                                |
| 9/19 | 1       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 50                | 20.6     | 8.1E-08                | 20       | 1.000          | 8.1E-08                        |
| 9/19 | 2       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 51                | 20.6     | 7.9E-08                | 20       | 1.000          | 7.9E-08                        |
| 9/19 | 3       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 52                | 20.6     | 7.8E-08                | 20       | 1.000          | 7.8E-08                        |
| 9/19 | 4       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 52                | 20.6     | 7.8E-08                | 20       | 1.000          | 7.8E-08                        |

**PERMEABILITY AT 20° C:  $7.9 \times 10^{-8}$  cm/sec (@ 5 psi effective stress)**



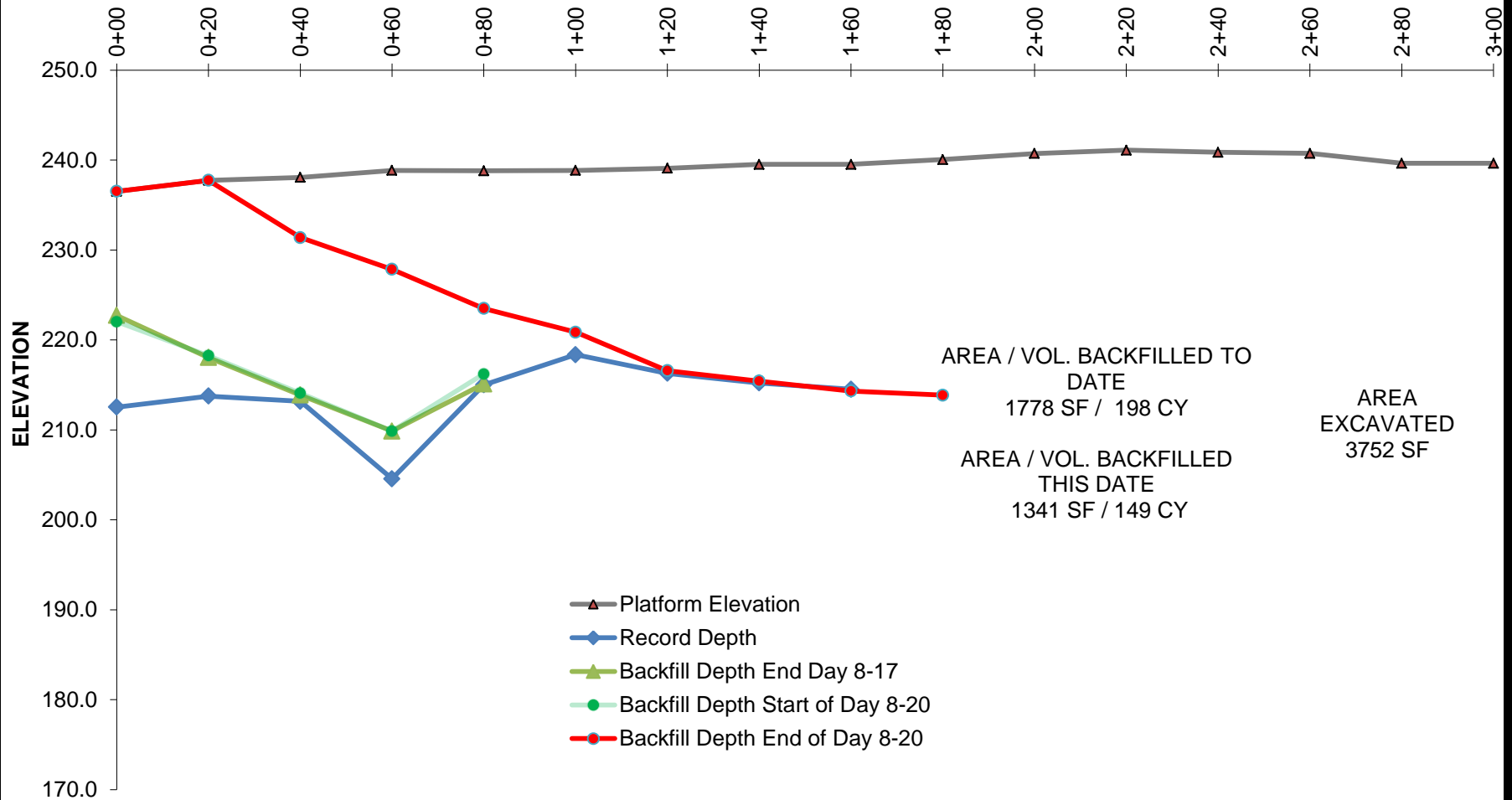
## **APPENDIX G**

### **Construction Trench Profiles**

# MORETRENCH AMERICAN CORPORATION

Shepley's Hill Landfill  
Devens, MA

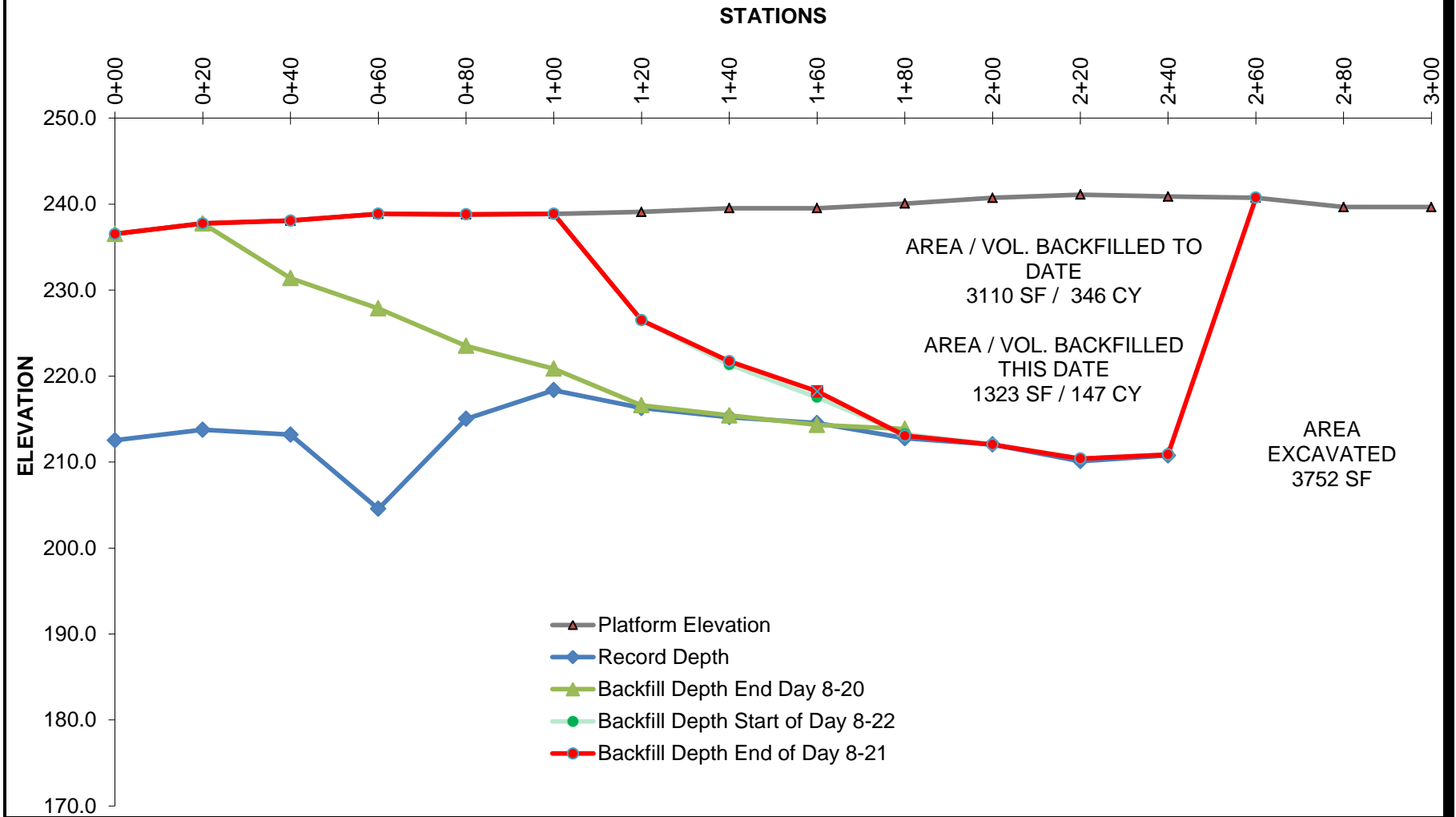
STATIONS





# MORETRENCH AMERICAN CORPORATION

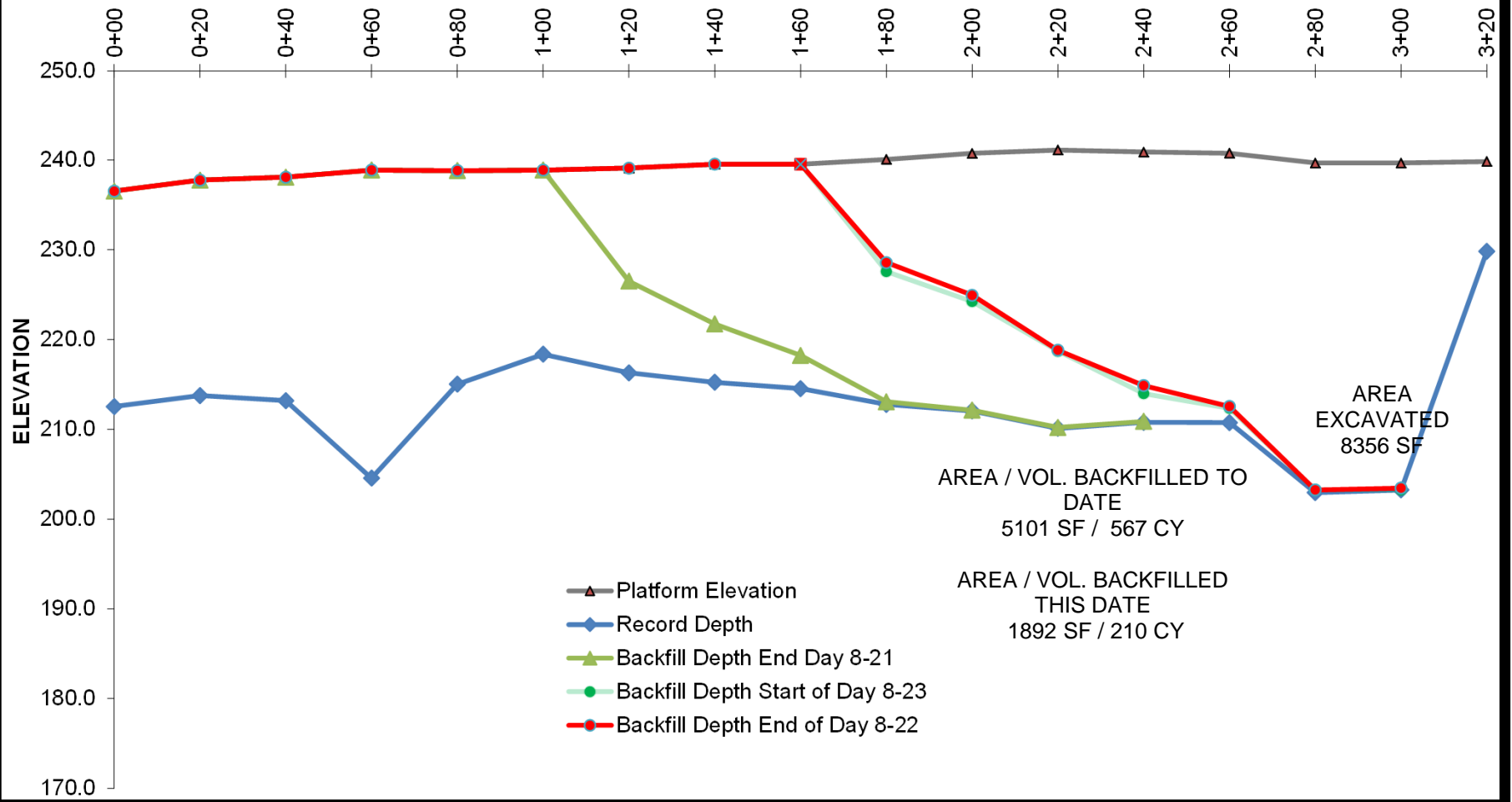
Shepley's Hill Landfill  
Devens, MA  
8-21-12



# MORETRENCH AMERICAN CORPORATION

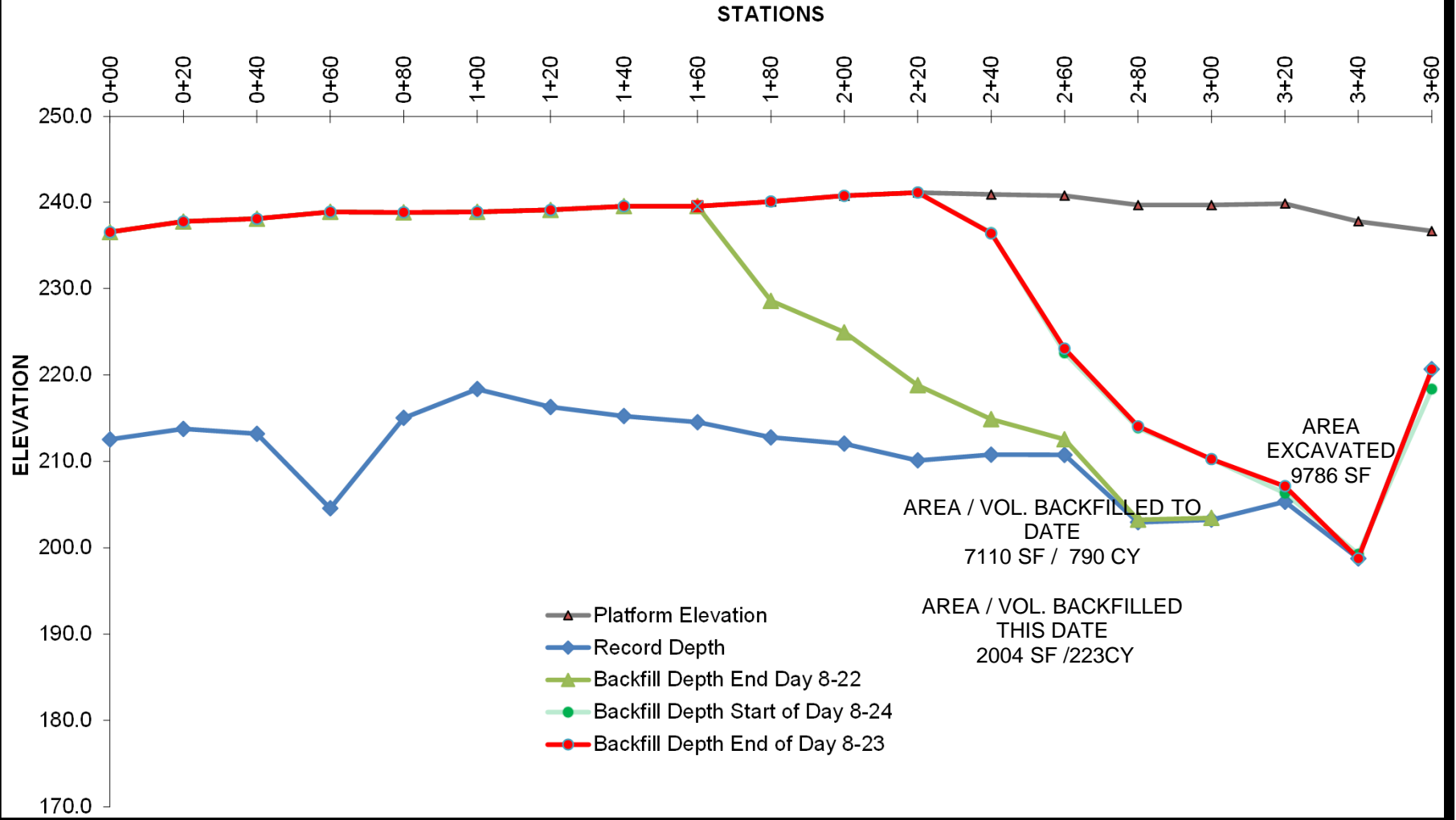
Shepley's Hill Landfill  
Devens, MA  
8-22-12

STATIONS



# MORETRENCH AMERICAN CORPORATION

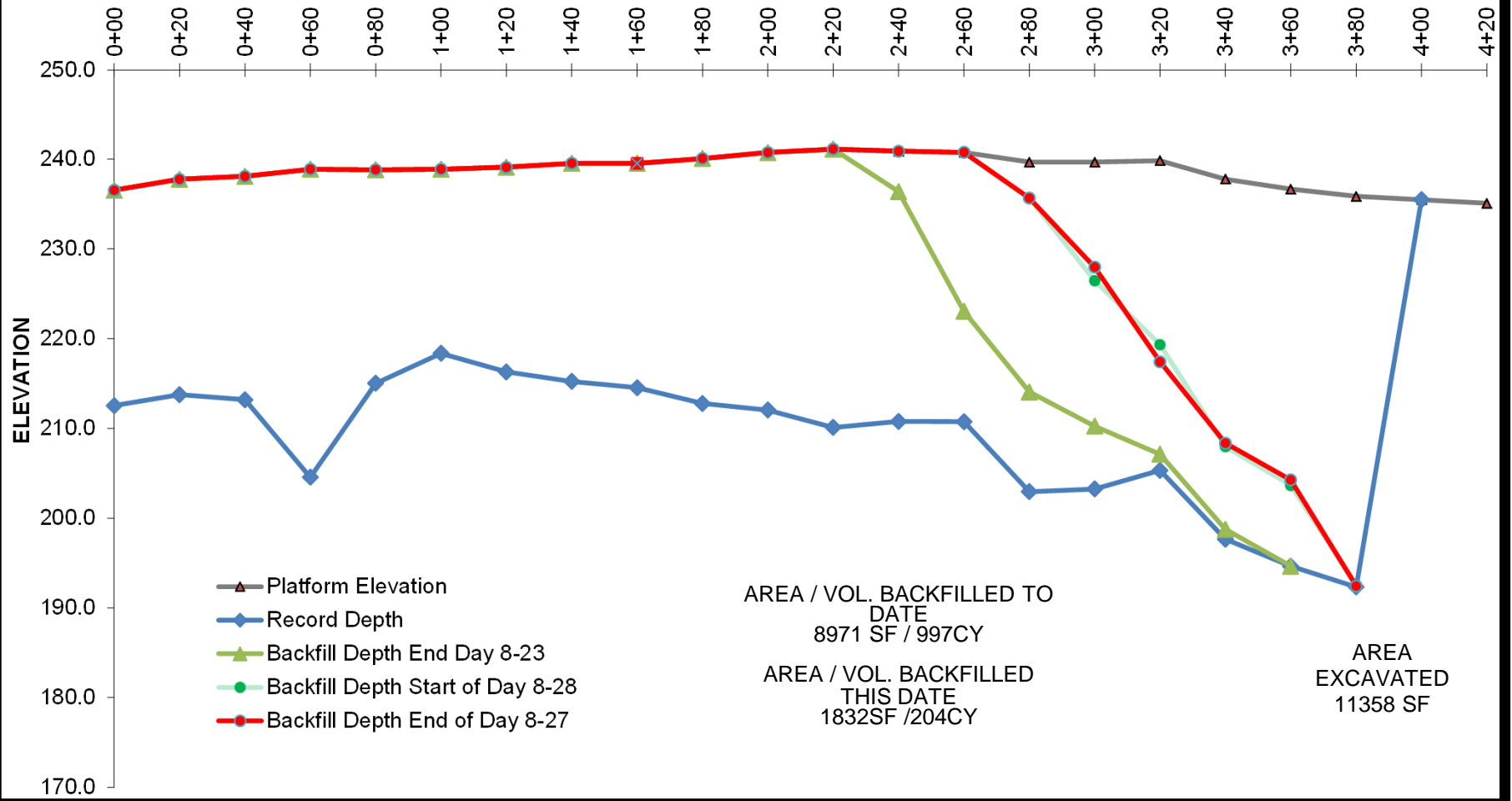
Shepley's Hill Landfill  
Devens, MA  
8-23-12



# MORETRENCH AMERICAN CORPORATION

Shepley's Hill Landfill  
Devens, MA  
8-27-12

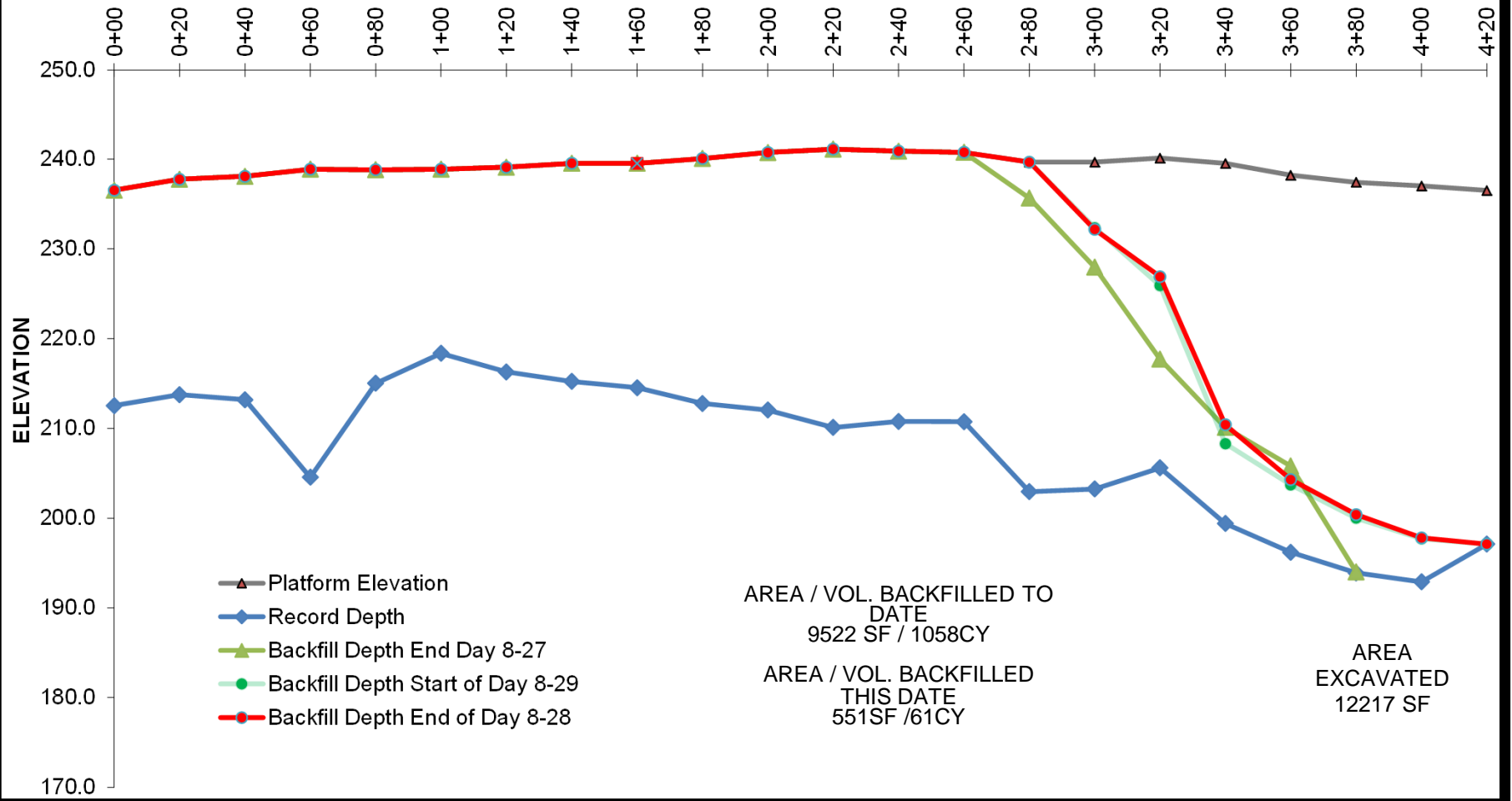
STATIONS



# MORETRENCH AMERICAN CORPORATION

Shepley's Hill Landfill  
Devens, MA  
8-28-12

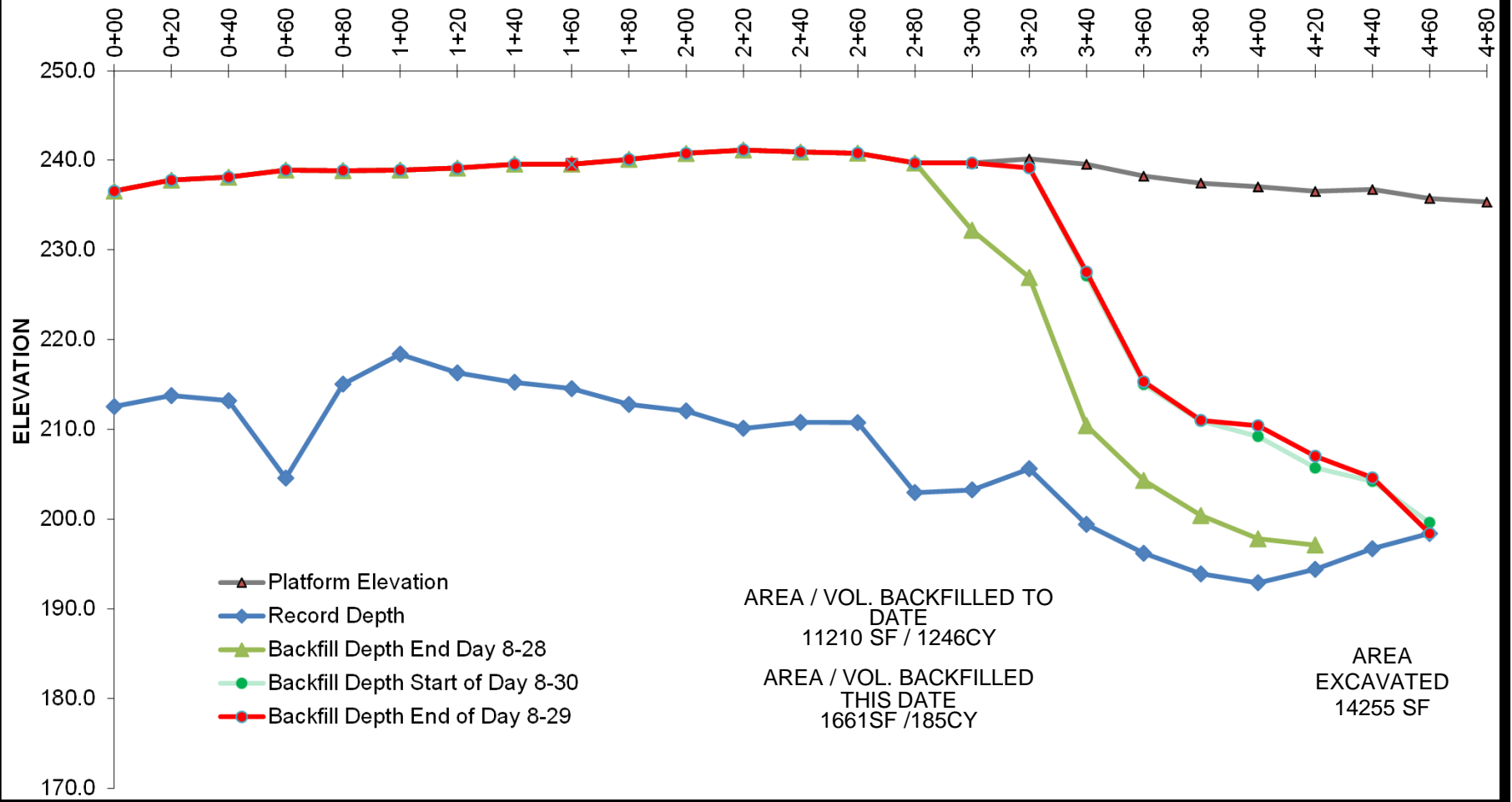
STATIONS



# MORETRENCH AMERICAN CORPORATION

Shepley's Hill Landfill  
Devens, MA  
8-29-12

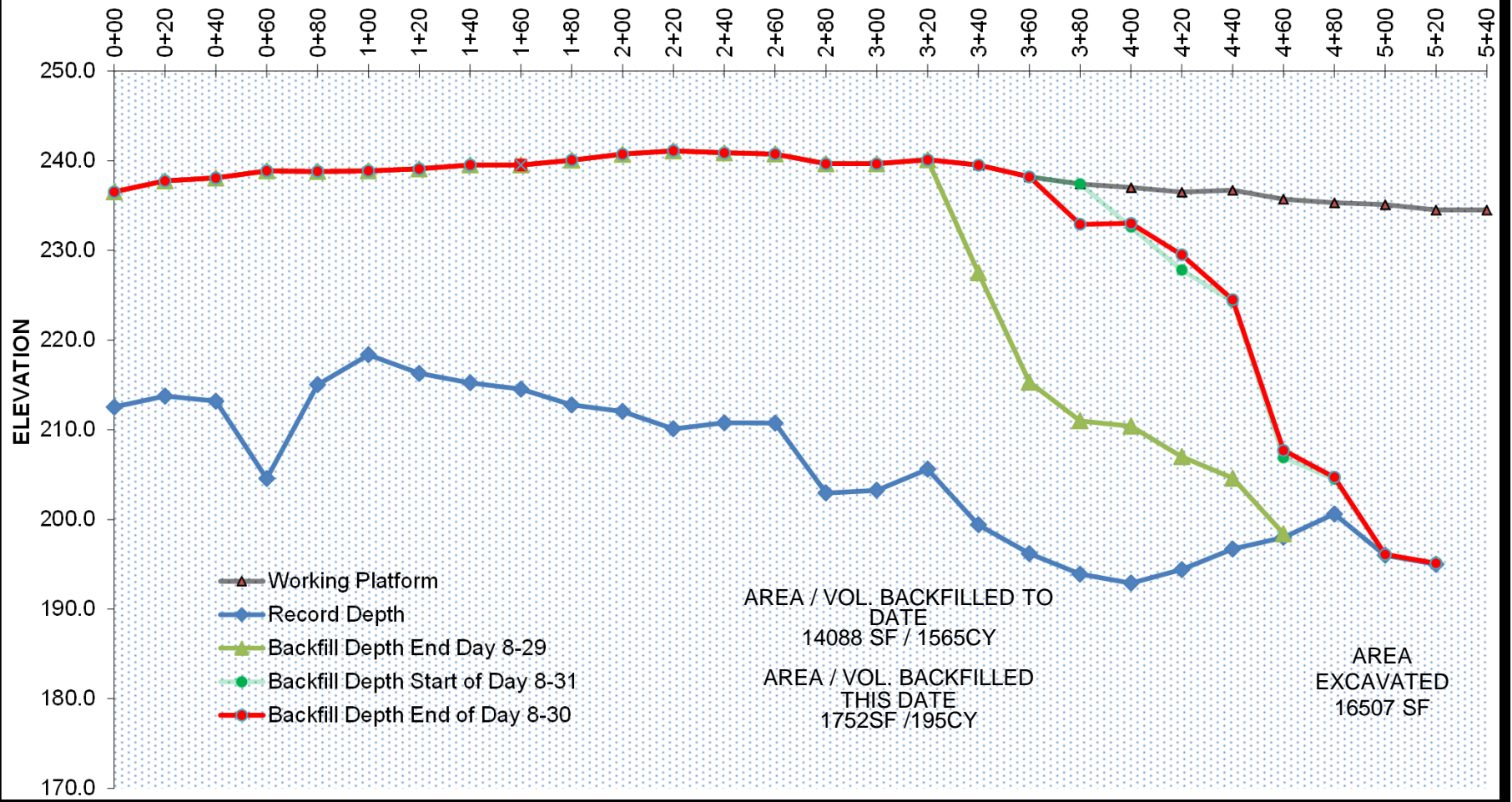
STATIONS



# MORETRENCH AMERICAN CORPORATION

Shepley's Hill Landfill  
Devens, MA  
8-30-12

STATIONS

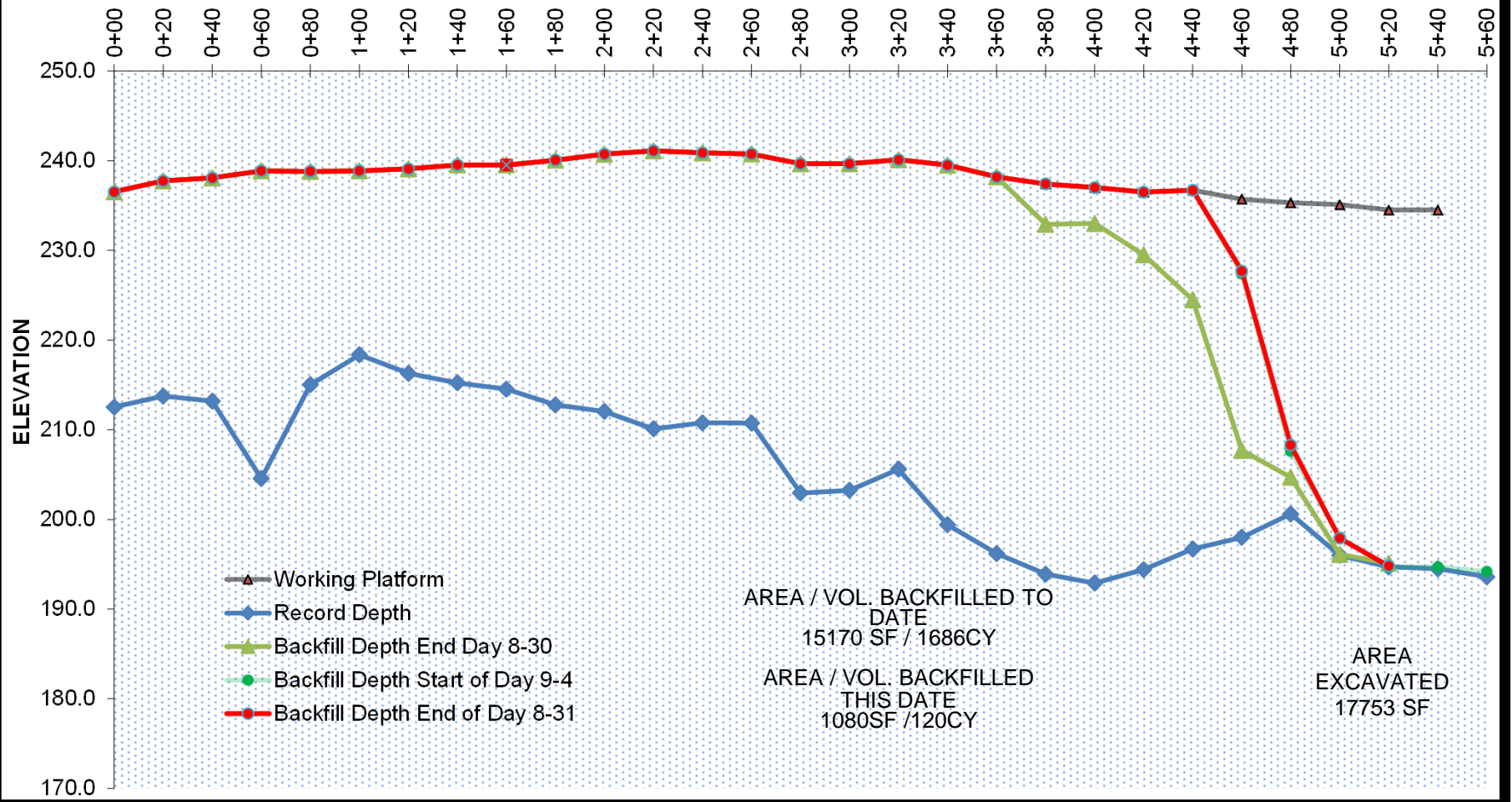




# MORETRENCH AMERICAN CORPORATION

Shepley's Hill Landfill  
Devens, MA  
8-31-12

STATIONS

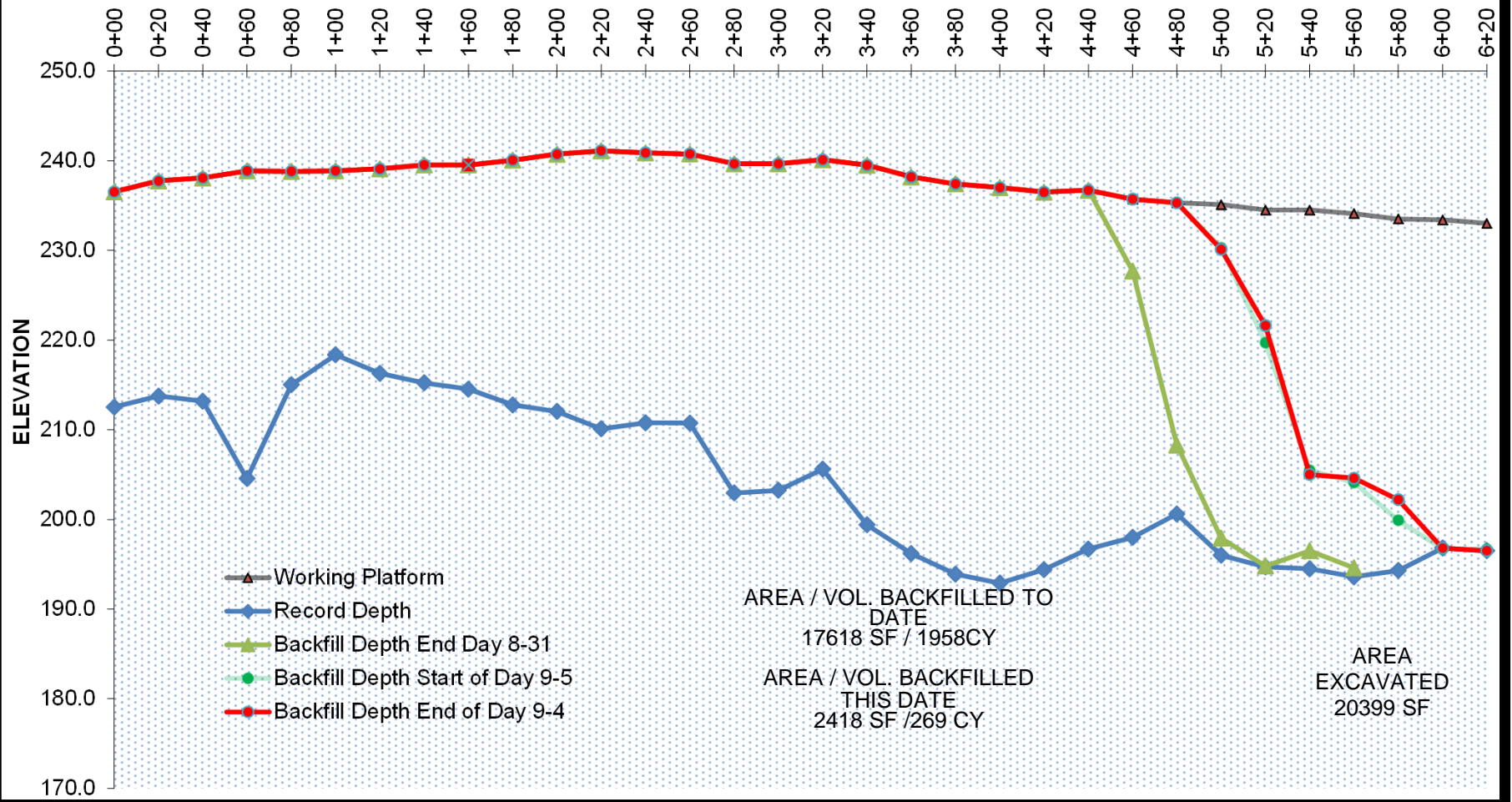




# MORETRENCH AMERICAN CORPORATION

Shepley's Hill Landfill  
Devens, MA  
9-4-12

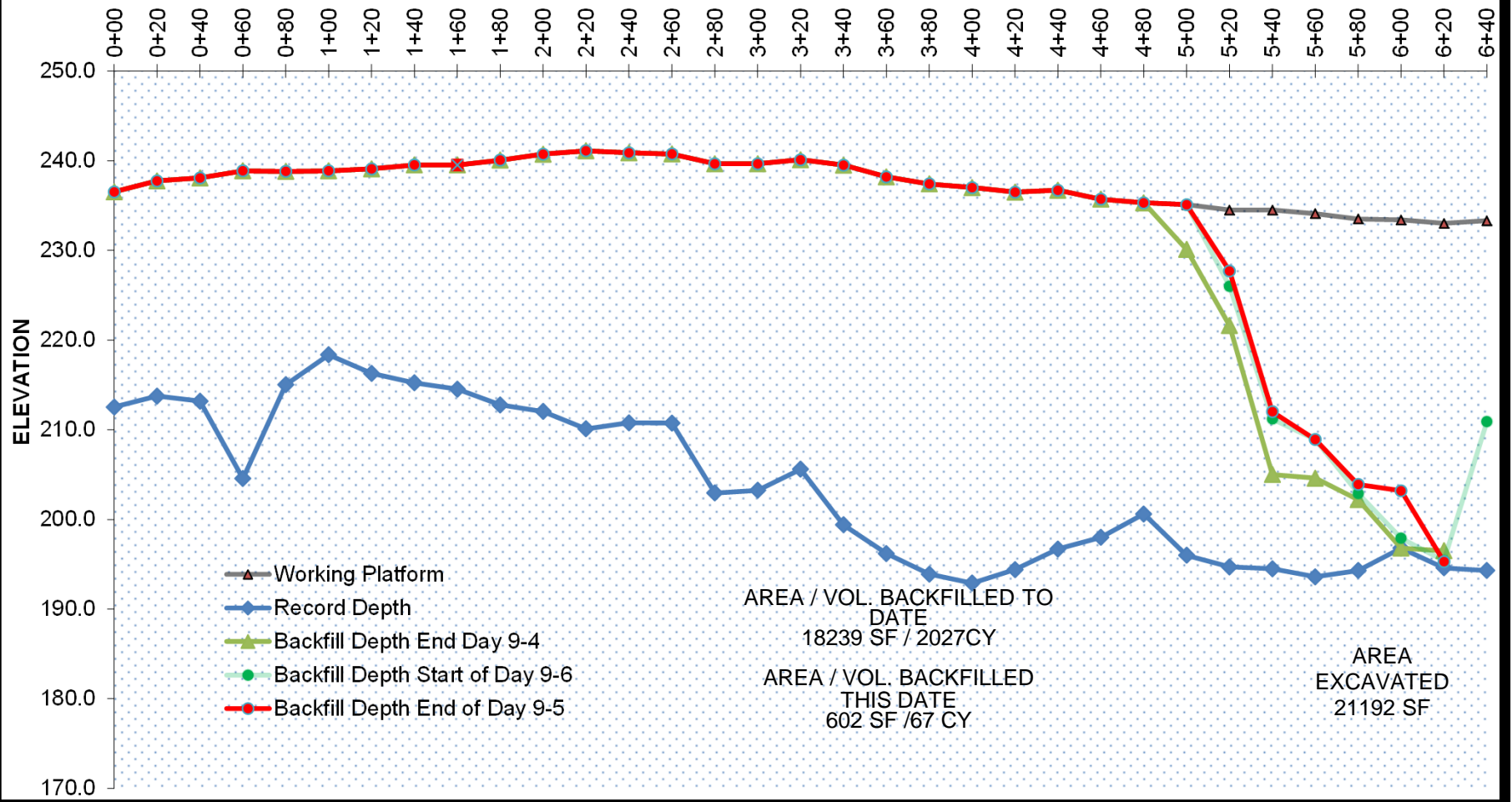
STATIONS



# MORETRENCH AMERICAN CORPORATION

Shepley's Hill Landfill  
Devens, MA  
9-5-12

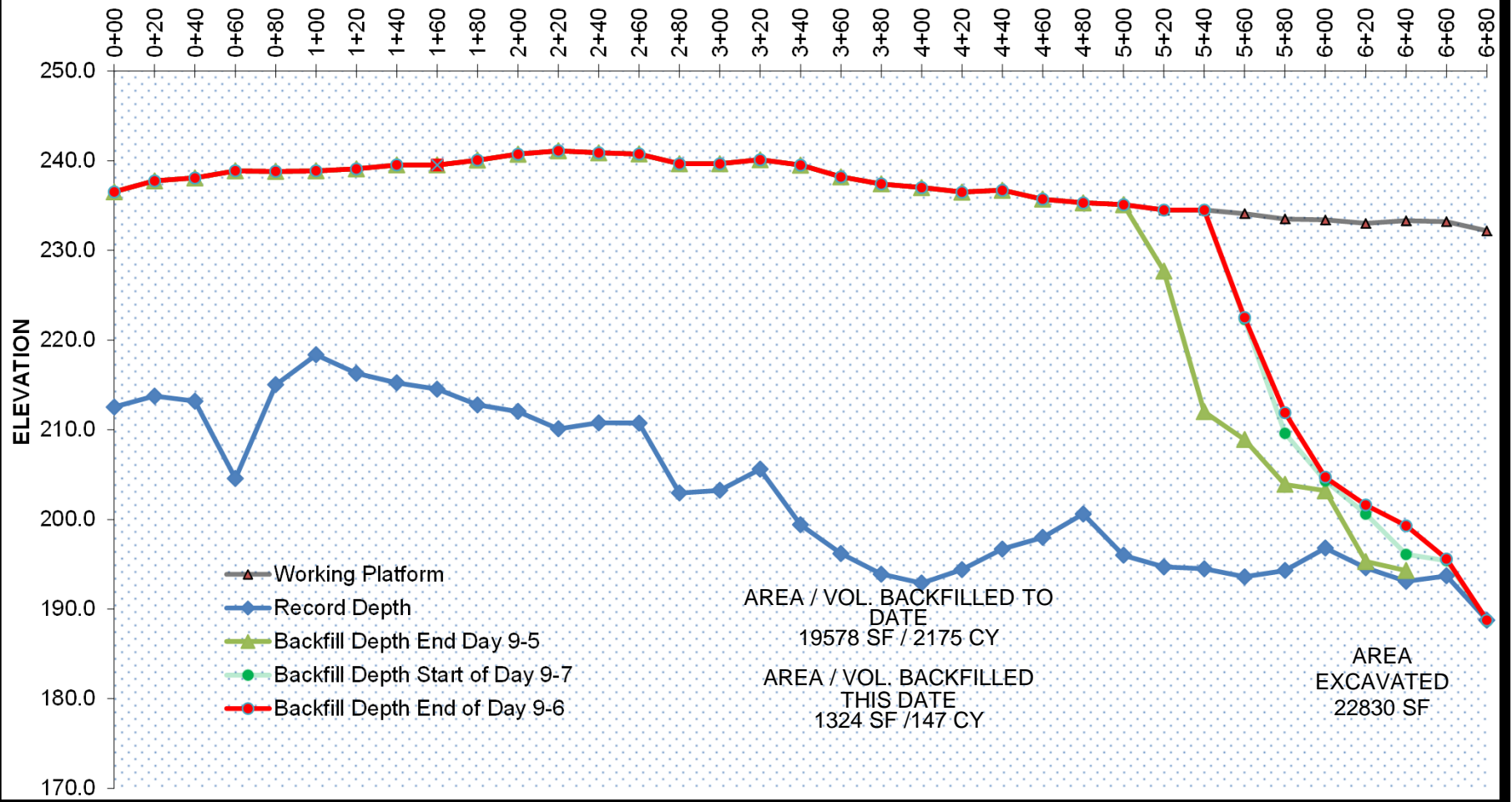
STATIONS



# MORETRENCH AMERICAN CORPORATION

Shepley's Hill Landfill  
Devens, MA  
9-6-12

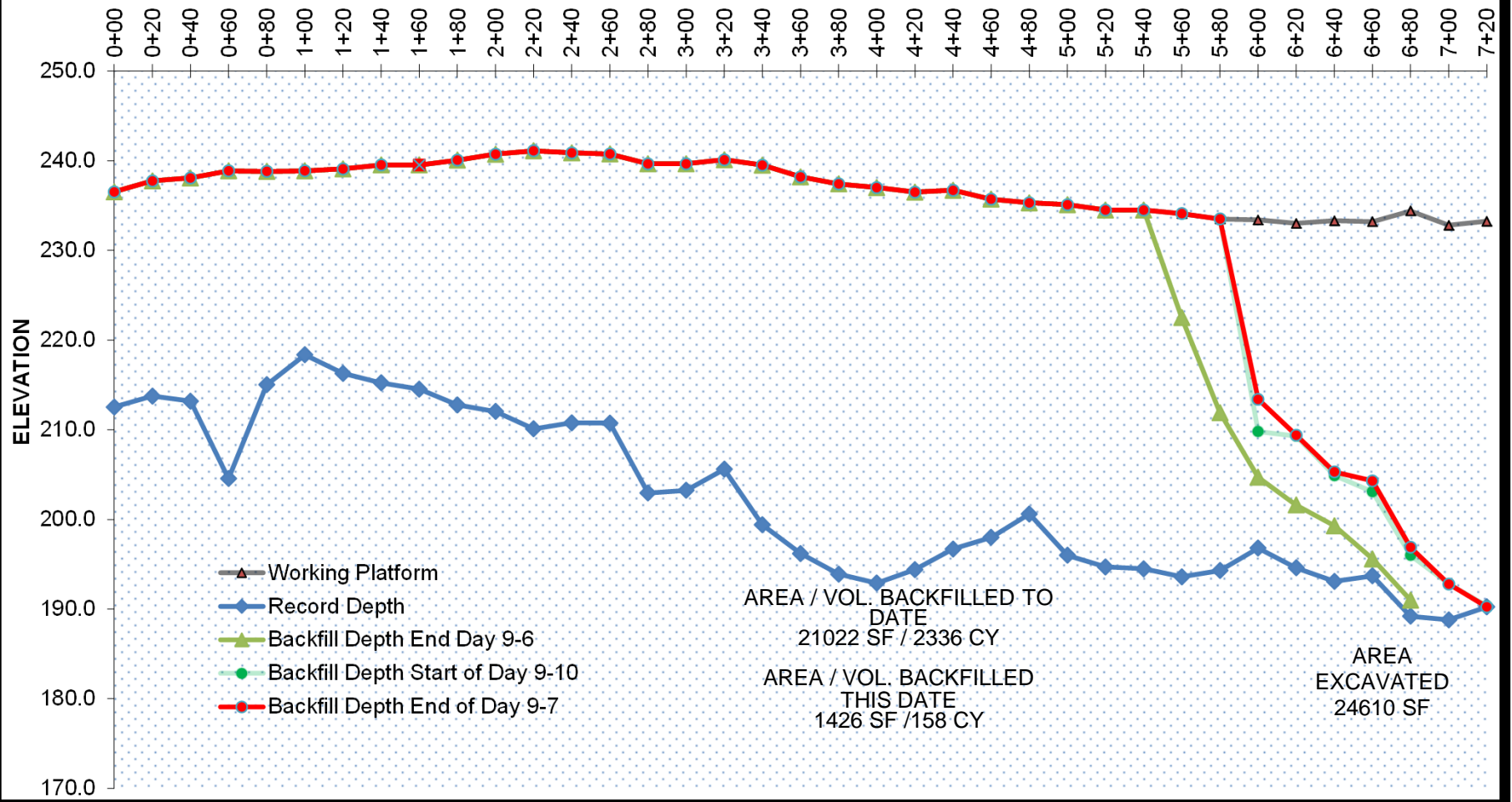
STATIONS



# MORETRENCH AMERICAN CORPORATION

Shepley's Hill Landfill  
Devens, MA  
9-7-12

STATIONS

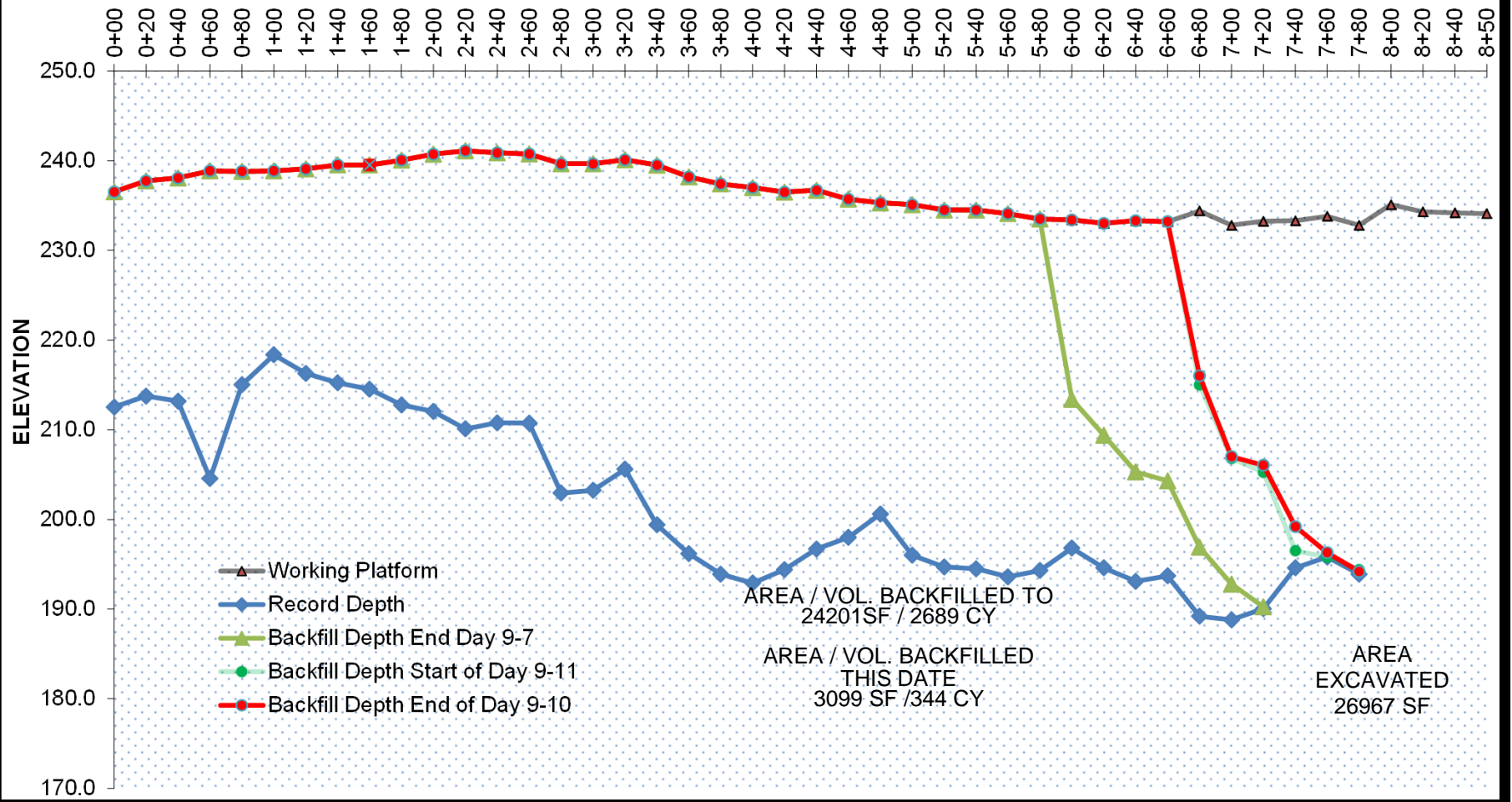




# MORETRENCH AMERICAN CORPORATION

Shepley's Hill Landfill  
Devens, MA  
9-10-12

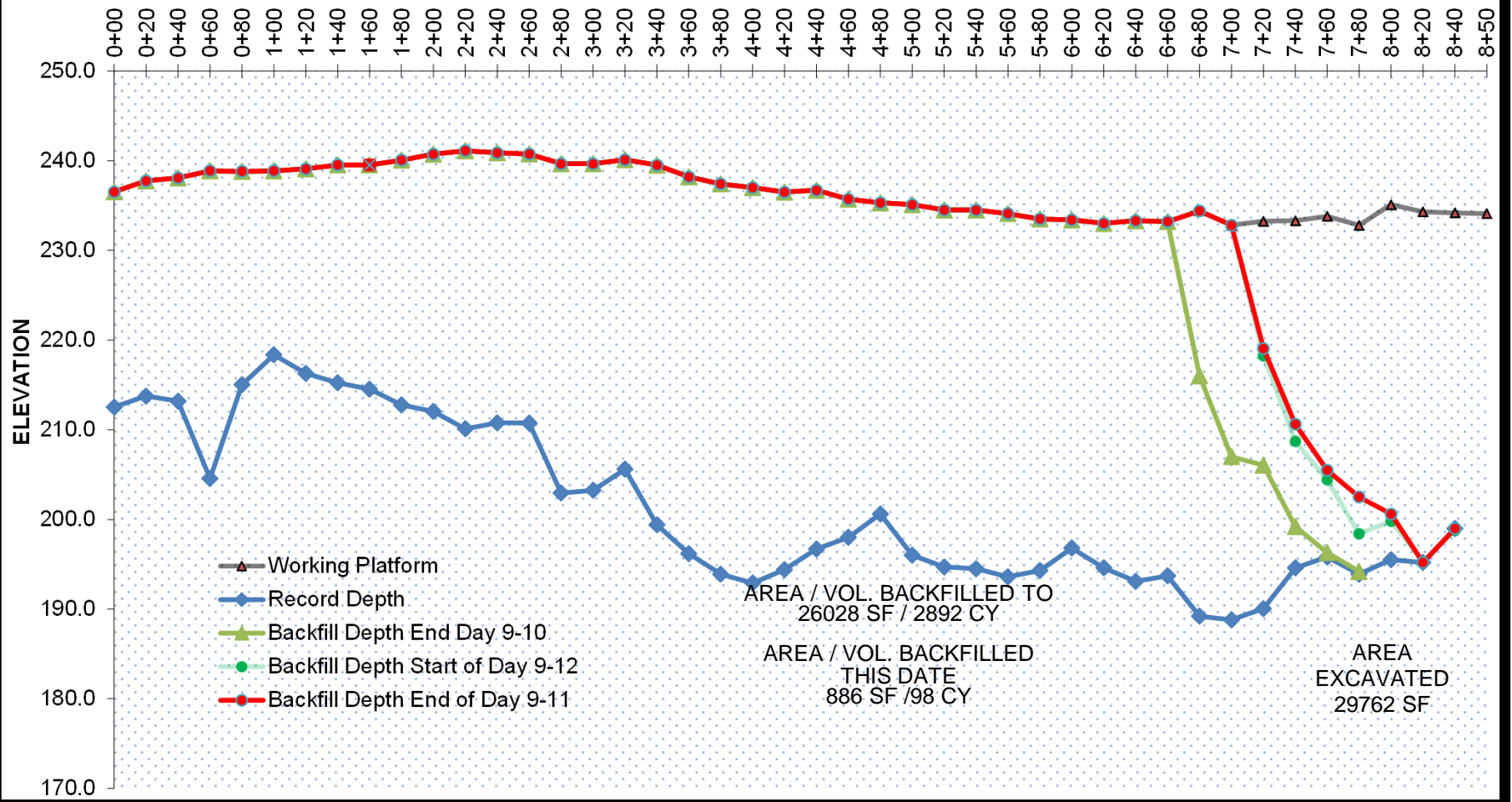
STATIONS



# MORETRENCH AMERICAN CORPORATION

Shepley's Hill Landfill  
Devens, MA  
9-11-12

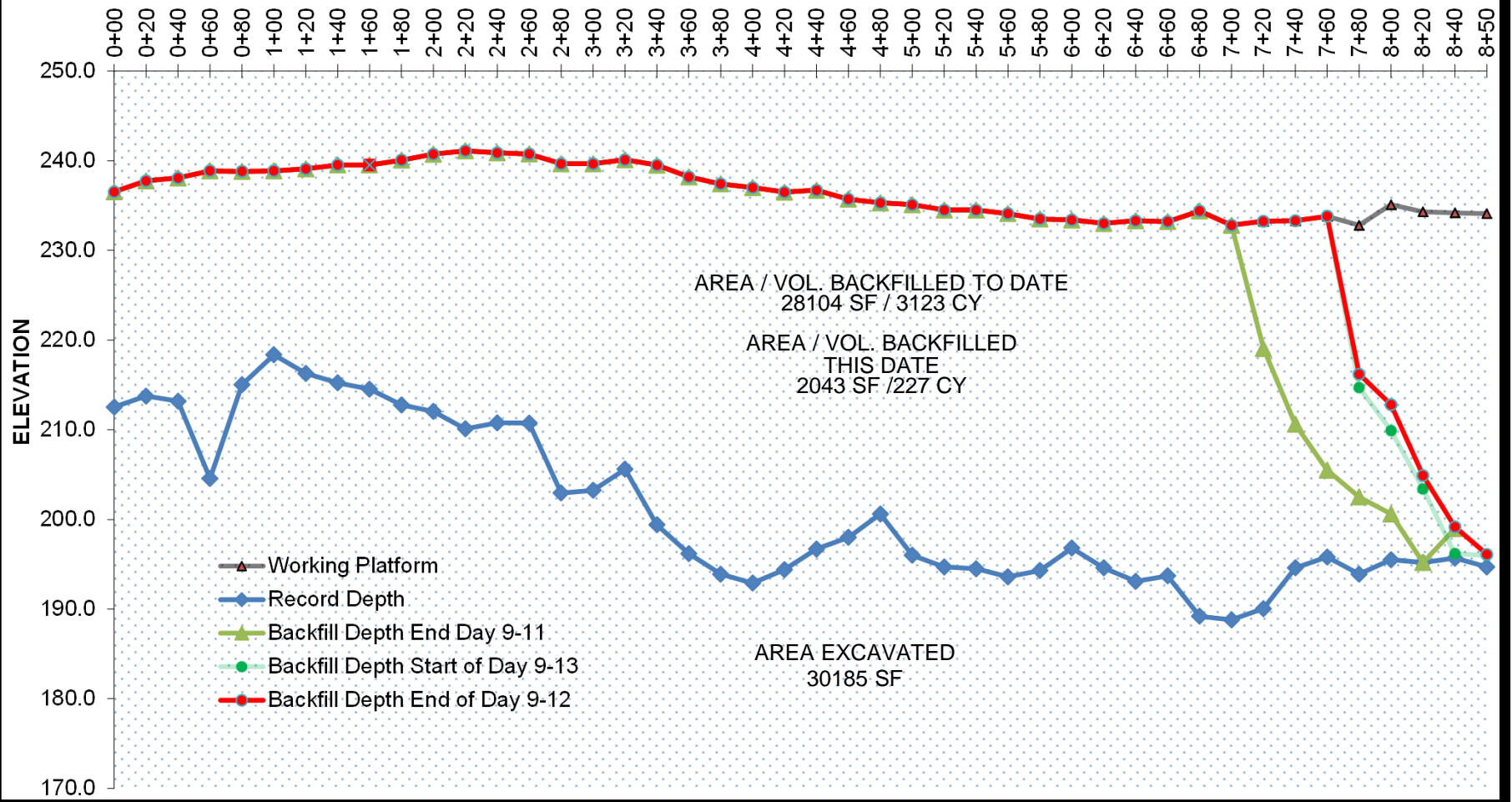
STATIONS



# MORETRENCH AMERICAN CORPORATION

Shepley's Hill Landfill  
Devens, MA  
9-12-12

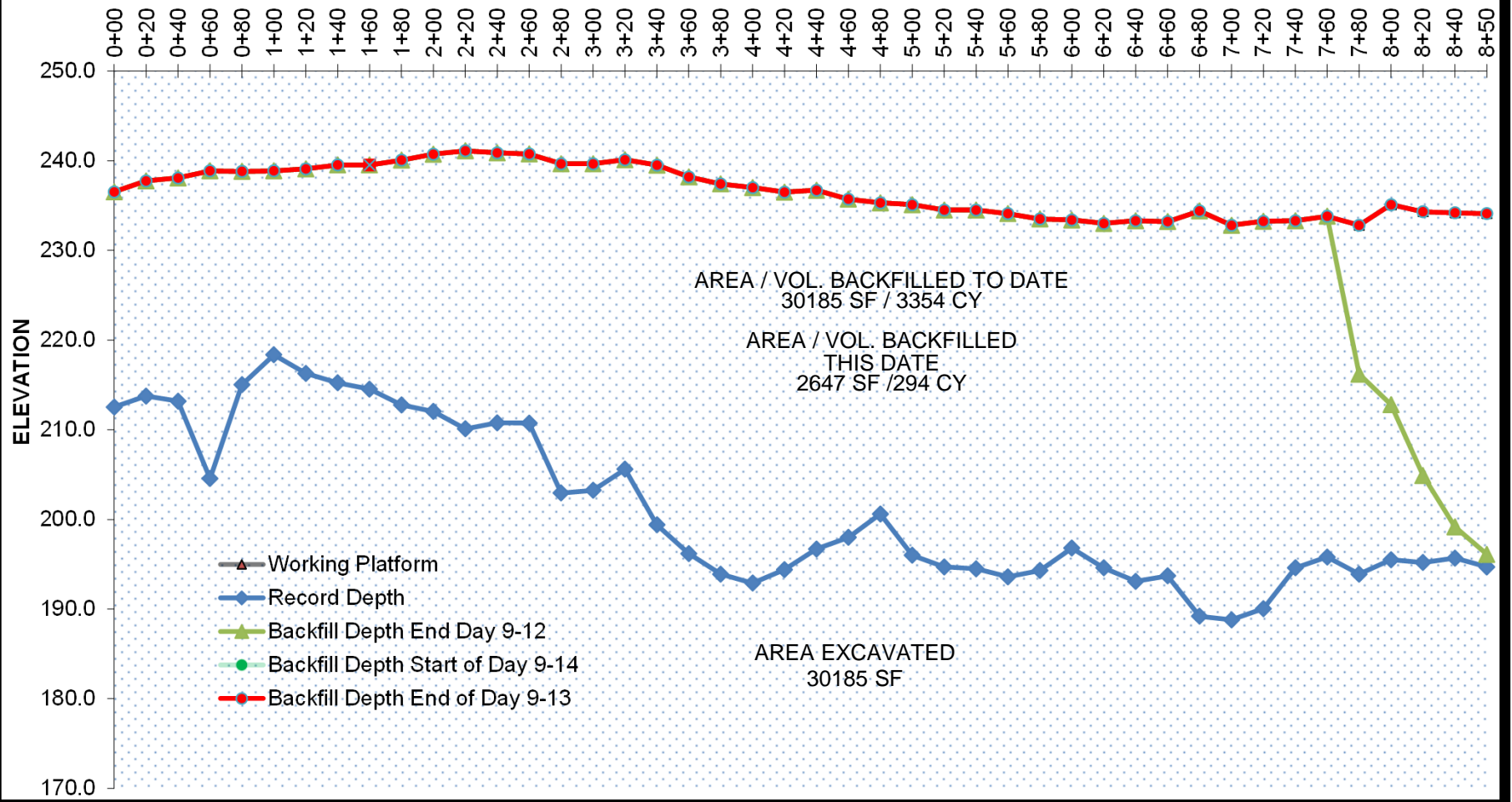
STATIONS



# MORETRENCH AMERICAN CORPORATION

Shepley's Hill Landfill  
Devens, MA  
9-13-12

STATIONS





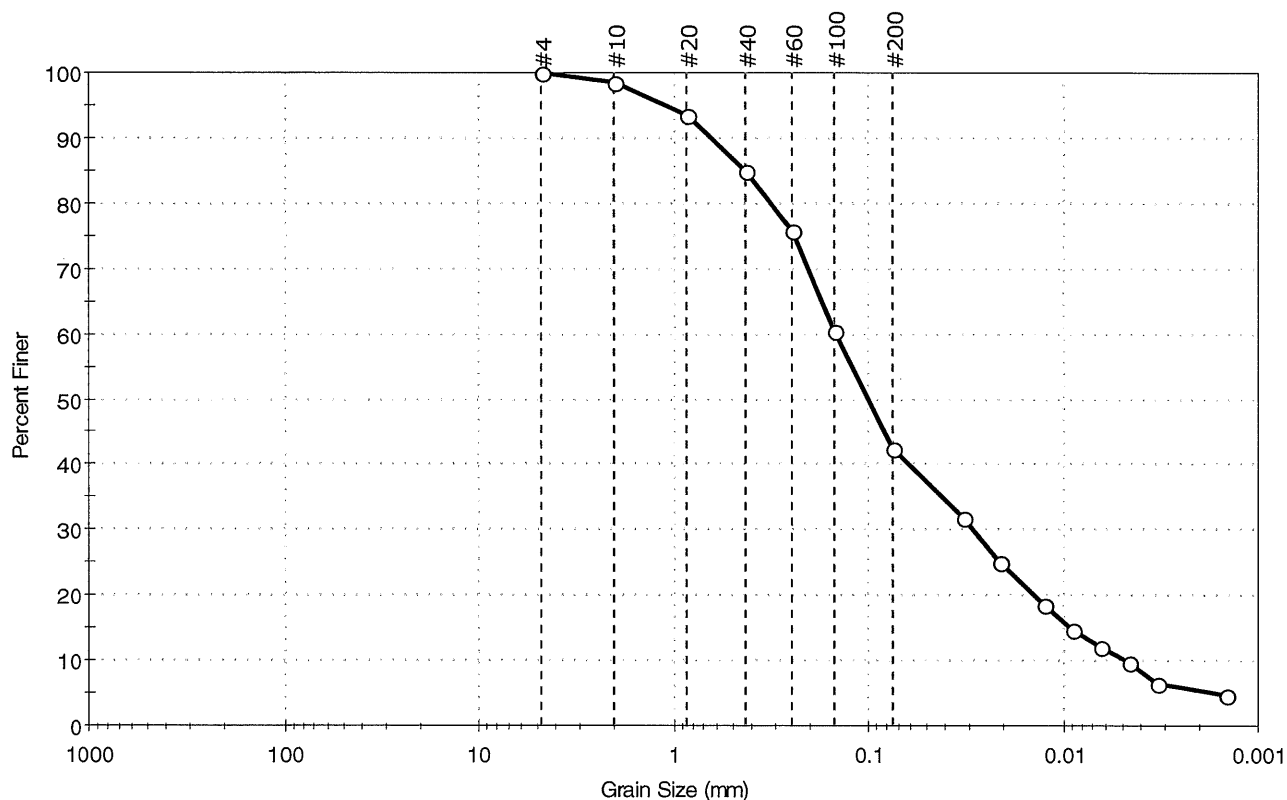


## **APPENDIX H**

### **Results of Laboratory Backfill Cap Quality Control Testing**

|                                                                             |                       |
|-----------------------------------------------------------------------------|-----------------------|
| Client: Moretrench American Corp.                                           | Project No: GTX-11659 |
| Project: Shepley Landfill                                                   | Tested By: jbr        |
| Location: Devens, MA                                                        | Checked By: jdt       |
| Boring ID: ---                                                              | Sample Type: bag      |
| Sample ID: CAP-1                                                            | Test Date: 09/19/12   |
| Depth: ---                                                                  | Test Id: 249689       |
| Test Comment: ---                                                           |                       |
| Sample Description: Moist, yellowish brown clayey sand (soil-bentonite mix) |                       |
| Sample Comment: ---                                                         |                       |

## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
|----------|----------|--------|--------------------|
| ---      | 0.0      | 57.6   | 42.4               |

| Sieve Name | Sieve Size, mm     | Percent Finer | Spec. Percent | Complies |
|------------|--------------------|---------------|---------------|----------|
| #4         | 4.75               | 100           |               |          |
| #10        | 2.00               | 99            |               |          |
| #20        | 0.85               | 93            |               |          |
| #40        | 0.425              | 85            |               |          |
| #60        | 0.25               | 76            |               |          |
| #100       | 0.15               | 60            |               |          |
| #200       | 0.075              | 42            |               |          |
| ---        | Particle Size (mm) | Percent Finer | Spec. Percent | Complies |
| ---        | 0.0329             | 32            |               |          |
| ---        | 0.0213             | 25            |               |          |
| ---        | 0.0126             | 19            |               |          |
| ---        | 0.0090             | 15            |               |          |
| ---        | 0.0064             | 12            |               |          |
| ---        | 0.0046             | 10            |               |          |
| ---        | 0.0033             | 6             |               |          |
| ---        | 0.0015             | 5             |               |          |

### Coefficients

|                             |                             |
|-----------------------------|-----------------------------|
| D <sub>85</sub> = 0.4283 mm | D <sub>30</sub> = 0.0292 mm |
| D <sub>60</sub> = 0.1478 mm | D <sub>15</sub> = 0.0092 mm |
| D <sub>50</sub> = 0.1004 mm | D <sub>10</sub> = 0.0048 mm |
| C <sub>u</sub> = N/A        | C <sub>c</sub> = N/A        |

### Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

### Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---



|                     |                                                         |             |     |
|---------------------|---------------------------------------------------------|-------------|-----|
| Client:             | Moretrench American Corp.                               |             |     |
| Project Name:       | Shepley Landfill                                        |             |     |
| Project Location:   | Devens, MA                                              |             |     |
| GTX #:              | 11659                                                   |             |     |
| Start Date:         | 9/19/2012                                               | Tested By:  | ema |
| End Date:           | 9/25/2012                                               | Checked By: | jdt |
| Boring #:           | ---                                                     |             |     |
| Sample #:           | Cap 1                                                   |             |     |
| Depth:              | ---                                                     |             |     |
| Visual Description: | Moist, yellowish brown clayey sand (soil-bentonite mix) |             |     |

## Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter by ASTM D 5084 Constant Volume

|                     |                                                                                                                       |                 |                          |
|---------------------|-----------------------------------------------------------------------------------------------------------------------|-----------------|--------------------------|
| Sample Type:        | Remolded                                                                                                              | Permeant Fluid: | De-aired Distilled water |
| Orientation:        | Vertical                                                                                                              | Cell #:         | 14/11/5                  |
| Sample Preparation: | Test specimen compacted with moderate effort at the as-received moisture content . Trimmings moisture content = 25.3% |                 |                          |

| Parameter               | Initial | Final |
|-------------------------|---------|-------|
| Height, in              | 2.63    | 2.52  |
| Diameter, in            | 2.85    | 2.78  |
| Area, in <sup>2</sup>   | 6.38    | 6.07  |
| Volume, in <sup>3</sup> | 16.8    | 15.3  |
| Mass, g                 | 515     | 500   |
| Bulk Density, pcf       | 117     | 124   |
| Moisture Content, %     | 26.7    | 22.9  |
| Dry Density, pcf        | 92.1    | 101   |
| Degree of Saturation, % | ---     | 95    |

### B COEFFICIENT DETERMINATION

|                       |      |                          |      |
|-----------------------|------|--------------------------|------|
| Cell Pressure, psi:   | 95.2 | Pressure Increment, psi: | 5.03 |
| Sample Pressure, psi: | 93.2 | B Coefficient:           | 0.99 |

### FLOW DATA

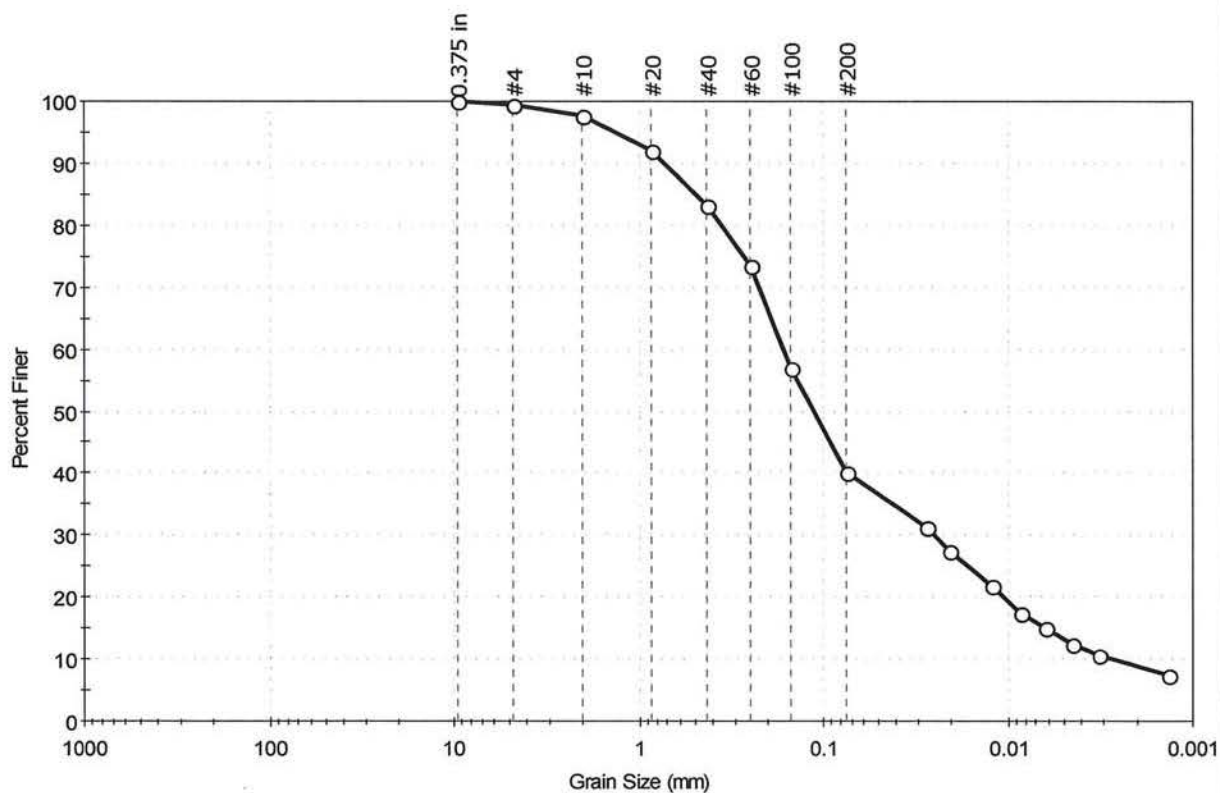
| Date | Trial # | Pressure, psi |        | Manometer Readings |                |                                | Elapsed Time, sec | Gradient | Permeability K, cm/sec | Temp, °C | R <sub>t</sub> | Permeability K @ 20 °C, cm/sec |
|------|---------|---------------|--------|--------------------|----------------|--------------------------------|-------------------|----------|------------------------|----------|----------------|--------------------------------|
|      |         | Cell          | Sample | Z <sub>1</sub>     | Z <sub>2</sub> | Z <sub>1</sub> -Z <sub>2</sub> |                   |          |                        |          |                |                                |
| 9/24 | 1       | 90            | 88     | 10.0               | 9.9            | 0.1                            | 46                | 19.7     | 8.9E-08                | 20       | 1.000          | 8.9E-08                        |
| 9/24 | 2       | 90            | 88     | 10.0               | 9.9            | 0.1                            | 52                | 19.7     | 7.9E-08                | 20       | 1.000          | 7.9E-08                        |
| 9/24 | 3       | 90            | 88     | 10.0               | 9.9            | 0.1                            | 55                | 19.7     | 7.4E-08                | 20       | 1.000          | 7.4E-08                        |
| 9/24 | 4       | 90            | 88     | 10.0               | 9.9            | 0.1                            | 57                | 19.7     | 7.2E-08                | 20       | 1.000          | 7.2E-08                        |

**PERMEABILITY AT 20° C:  $7.9 \times 10^{-8}$  cm/sec (@ 2 psi effective stress)**



|                     |                                                         |              |           |
|---------------------|---------------------------------------------------------|--------------|-----------|
| Client:             | Moretrench American Corp.                               | Project No:  | GTX-11659 |
| Project:            | Shepley Landfill                                        |              |           |
| Location:           | Devens, MA                                              |              |           |
| Boring ID:          | ---                                                     | Sample Type: | bag       |
| Sample ID:          | Cap 2                                                   | Test Date:   | 11/02/12  |
| Depth:              | ---                                                     | Test Id:     | 253393    |
| Test Comment:       | ---                                                     | Tested By:   | jbr       |
| Sample Description: | Moist, yellowish brown clayey sand (soil-bentonite mix) | Checked By:  | jdt       |
| Sample Comment:     | ---                                                     |              |           |

## Particle Size Analysis - ASTM D 422-63 (Reapproved 2002)



| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
|----------|----------|--------|--------------------|
| —        | 0.6      | 59.2   | 40.2               |

| Sieve Name | Sieve Size, mm     | Percent Finer | Spec. Percent | Complies |
|------------|--------------------|---------------|---------------|----------|
| 0.375 in   | 9.50               | 100           |               |          |
| #4         | 4.75               | 99            |               |          |
| #10        | 2.00               | 98            |               |          |
| #20        | 0.85               | 92            |               |          |
| #40        | 0.42               | 83            |               |          |
| #60        | 0.25               | 74            |               |          |
| #100       | 0.15               | 57            |               |          |
| #200       | 0.075              | 40            |               |          |
| ---        | Particle Size (mm) | Percent Finer | Spec. Percent | Complies |
| ---        | 0.0273             | 31            |               |          |
| ---        | 0.0208             | 28            |               |          |
| ---        | 0.0122             | 22            |               |          |
| ---        | 0.0087             | 18            |               |          |
| ---        | 0.0062             | 15            |               |          |
| ---        | 0.0045             | 13            |               |          |
| ---        | 0.0032             | 11            |               |          |
| ---        | 0.0013             | 8             |               |          |

### Coefficients

|                             |                             |
|-----------------------------|-----------------------------|
| D <sub>85</sub> = 0.4900 mm | D <sub>30</sub> = 0.0248 mm |
| D <sub>60</sub> = 0.1647 mm | D <sub>15</sub> = 0.0062 mm |
| D <sub>50</sub> = 0.1124 mm | D <sub>10</sub> = 0.0027 mm |
| C <sub>u</sub> = 61.000     | C <sub>c</sub> = 1.383      |

### Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

### Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---



|                     |                                                         |             |     |
|---------------------|---------------------------------------------------------|-------------|-----|
| Client:             | Moretrench American Corp.                               |             |     |
| Project Name:       | Shepley Landfill                                        |             |     |
| Project Location:   | Devens, MA                                              |             |     |
| GTX #:              | 11659                                                   |             |     |
| Start Date:         | 10/31/2012                                              | Tested By:  | ema |
| End Date:           | 11/5/2012                                               | Checked By: | jdt |
| Boring #:           | ---                                                     |             |     |
| Sample #:           | Cap 2                                                   |             |     |
| Depth:              | ---                                                     |             |     |
| Visual Description: | Moist, yellowish brown clayey sand (soil-bentonite mix) |             |     |

## Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter by ASTM D 5084 Constant Volume

| Sample Type:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Remolded                                                                                                              | Permeant Fluid: | De-aired Distilled water |           |         |       |            |      |      |              |      |      |                       |      |      |                         |      |      |         |     |     |                   |     |     |                     |      |      |                  |      |     |                         |     |    |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|-----------------|--------------------------|-----------|---------|-------|------------|------|------|--------------|------|------|-----------------------|------|------|-------------------------|------|------|---------|-----|-----|-------------------|-----|-----|---------------------|------|------|------------------|------|-----|-------------------------|-----|----|
| Orientation:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Vertical                                                                                                              | Cell #:         | 1/14/23                  |           |         |       |            |      |      |              |      |      |                       |      |      |                         |      |      |         |     |     |                   |     |     |                     |      |      |                  |      |     |                         |     |    |
| Sample Preparation:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Test specimen compacted with moderate effort at the as-received moisture content . Trimmings moisture content = 22.4% |                 |                          |           |         |       |            |      |      |              |      |      |                       |      |      |                         |      |      |         |     |     |                   |     |     |                     |      |      |                  |      |     |                         |     |    |
| <table><tr><th>Parameter</th><th>Initial</th><th>Final</th></tr><tr><td>Height, in</td><td>2.35</td><td>1.99</td></tr><tr><td>Diameter, in</td><td>2.85</td><td>2.82</td></tr><tr><td>Area, in<sup>2</sup></td><td>6.38</td><td>6.25</td></tr><tr><td>Volume, in<sup>3</sup></td><td>15.0</td><td>12.4</td></tr><tr><td>Mass, g</td><td>432</td><td>417</td></tr><tr><td>Bulk Density, pcf</td><td>110</td><td>128</td></tr><tr><td>Moisture Content, %</td><td>23.2</td><td>19.1</td></tr><tr><td>Dry Density, pcf</td><td>88.9</td><td>107</td></tr><tr><td>Degree of Saturation, %</td><td>---</td><td>96</td></tr></table> |                                                                                                                       |                 |                          | Parameter | Initial | Final | Height, in | 2.35 | 1.99 | Diameter, in | 2.85 | 2.82 | Area, in <sup>2</sup> | 6.38 | 6.25 | Volume, in <sup>3</sup> | 15.0 | 12.4 | Mass, g | 432 | 417 | Bulk Density, pcf | 110 | 128 | Moisture Content, % | 23.2 | 19.1 | Dry Density, pcf | 88.9 | 107 | Degree of Saturation, % | --- | 96 |
| Parameter                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Initial                                                                                                               | Final           |                          |           |         |       |            |      |      |              |      |      |                       |      |      |                         |      |      |         |     |     |                   |     |     |                     |      |      |                  |      |     |                         |     |    |
| Height, in                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 2.35                                                                                                                  | 1.99            |                          |           |         |       |            |      |      |              |      |      |                       |      |      |                         |      |      |         |     |     |                   |     |     |                     |      |      |                  |      |     |                         |     |    |
| Diameter, in                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2.85                                                                                                                  | 2.82            |                          |           |         |       |            |      |      |              |      |      |                       |      |      |                         |      |      |         |     |     |                   |     |     |                     |      |      |                  |      |     |                         |     |    |
| Area, in <sup>2</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 6.38                                                                                                                  | 6.25            |                          |           |         |       |            |      |      |              |      |      |                       |      |      |                         |      |      |         |     |     |                   |     |     |                     |      |      |                  |      |     |                         |     |    |
| Volume, in <sup>3</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 15.0                                                                                                                  | 12.4            |                          |           |         |       |            |      |      |              |      |      |                       |      |      |                         |      |      |         |     |     |                   |     |     |                     |      |      |                  |      |     |                         |     |    |
| Mass, g                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 432                                                                                                                   | 417             |                          |           |         |       |            |      |      |              |      |      |                       |      |      |                         |      |      |         |     |     |                   |     |     |                     |      |      |                  |      |     |                         |     |    |
| Bulk Density, pcf                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 110                                                                                                                   | 128             |                          |           |         |       |            |      |      |              |      |      |                       |      |      |                         |      |      |         |     |     |                   |     |     |                     |      |      |                  |      |     |                         |     |    |
| Moisture Content, %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 23.2                                                                                                                  | 19.1            |                          |           |         |       |            |      |      |              |      |      |                       |      |      |                         |      |      |         |     |     |                   |     |     |                     |      |      |                  |      |     |                         |     |    |
| Dry Density, pcf                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 88.9                                                                                                                  | 107             |                          |           |         |       |            |      |      |              |      |      |                       |      |      |                         |      |      |         |     |     |                   |     |     |                     |      |      |                  |      |     |                         |     |    |
| Degree of Saturation, %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | ---                                                                                                                   | 96              |                          |           |         |       |            |      |      |              |      |      |                       |      |      |                         |      |      |         |     |     |                   |     |     |                     |      |      |                  |      |     |                         |     |    |

### B COEFFICIENT DETERMINATION

|                       |      |                          |      |
|-----------------------|------|--------------------------|------|
| Cell Pressure, psi:   | 95.0 | Pressure Increment, psi: | 5.02 |
| Sample Pressure, psi: | 90.2 | B Coefficient:           | 0.97 |

### FLOW DATA

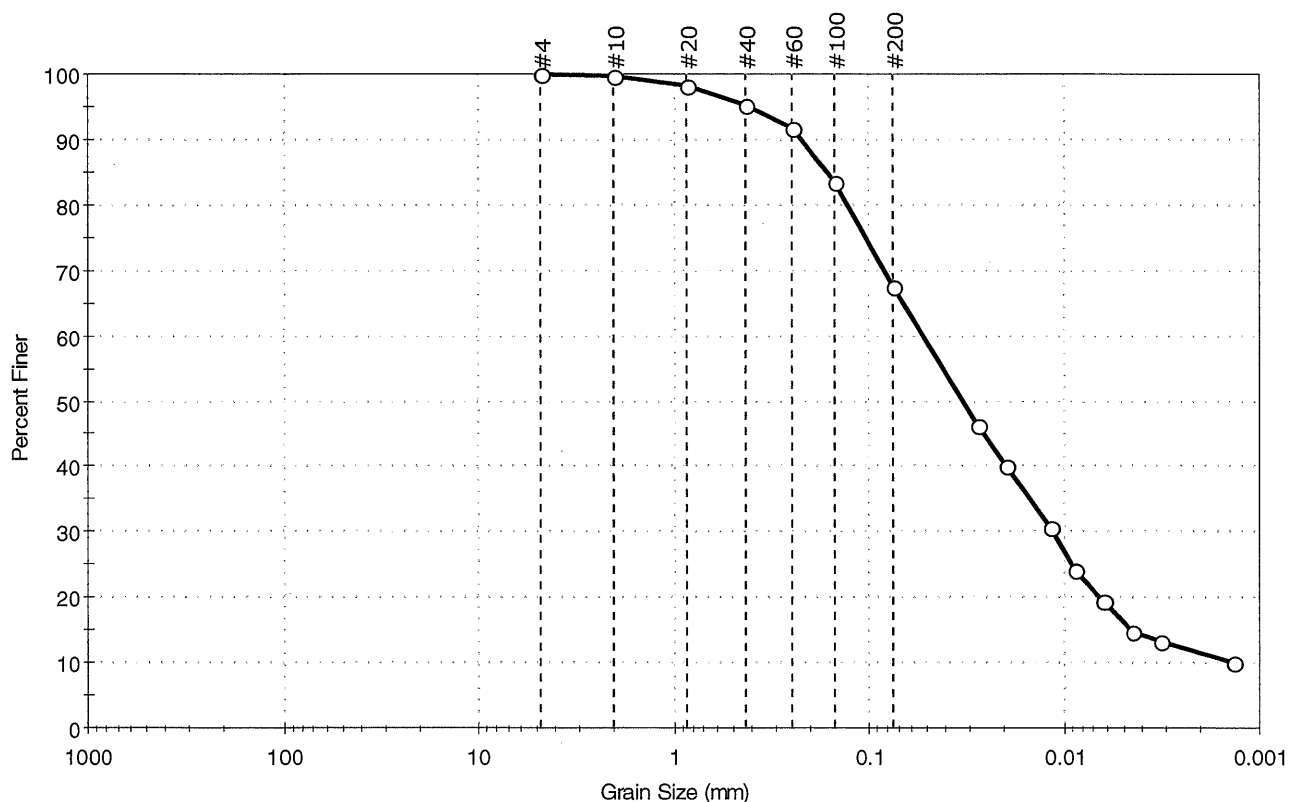
| Date | Trial # | Pressure, psi |        | Manometer Readings |                |                                | Elapsed Time, sec | Gradient | Permeability K, cm/sec | Temp, °C | R <sub>t</sub> | Permeability K @ 20 °C, cm/sec |
|------|---------|---------------|--------|--------------------|----------------|--------------------------------|-------------------|----------|------------------------|----------|----------------|--------------------------------|
|      |         | Cell          | Sample | Z <sub>1</sub>     | Z <sub>2</sub> | Z <sub>1</sub> -Z <sub>2</sub> |                   |          |                        |          |                |                                |
| 11/2 | 1       | 90            | 88     | 12.0               | 11.9           | 0.1                            | 100               | 29.9     | 2.6E-08                | 20       | 1.000          | 2.6E-08                        |
| 11/2 | 2       | 90            | 88     | 12.0               | 11.9           | 0.1                            | 105               | 29.9     | 2.5E-08                | 20       | 1.000          | 2.5E-08                        |
| 11/2 | 3       | 90            | 88     | 12.0               | 11.9           | 0.1                            | 106               | 29.9     | 2.5E-08                | 20       | 1.000          | 2.5E-08                        |
| 11/2 | 4       | 90            | 88     | 12.0               | 11.9           | 0.1                            | 108               | 29.9     | 2.4E-08                | 20       | 1.000          | 2.4E-08                        |

PERMEABILITY AT 20° C:  $2.5 \times 10^{-8}$  cm/sec (@ 2 psi effective stress)



|                                                       |                       |
|-------------------------------------------------------|-----------------------|
| Client: Moretrench American Corp.                     | Project No: GTX-11659 |
| Project: Shepley Landfill                             |                       |
| Location: Devens, MA                                  |                       |
| Boring ID: ---                                        | Sample Type: bag      |
| Sample ID: LPM-1                                      | Test Date: 09/25/12   |
| Depth: ---                                            | Test Id: 250131       |
| Test Comment: ---                                     | Tested By: jbr        |
| Sample Description: Moist, yellowish brown sandy silt | Checked By: jdt       |
| Sample Comment: ---                                   |                       |

## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



| %Cobble | %Gravel | %Sand | %Silt & Clay Size |
|---------|---------|-------|-------------------|
| —       | 0.0     | 32.5  | 67.5              |

| Sieve Name | Sieve Size, mm     | Percent Finer | Spec. Percent | Complies |
|------------|--------------------|---------------|---------------|----------|
| #4         | 4.75               | 100           |               |          |
| #10        | 2.00               | 100           |               |          |
| #20        | 0.85               | 98            |               |          |
| #40        | 0.42               | 95            |               |          |
| #60        | 0.25               | 92            |               |          |
| #100       | 0.15               | 83            |               |          |
| #200       | 0.075              | 67            |               |          |
| ---        | Particle Size (mm) | Percent Finer | Spec. Percent | Complies |
| ---        | 0.0276             | 46            |               |          |
| ---        | 0.0198             | 40            |               |          |
| ---        | 0.0118             | 31            |               |          |
| ---        | 0.0087             | 24            |               |          |
| ---        | 0.0063             | 20            |               |          |
| ---        | 0.0045             | 15            |               |          |
| ---        | 0.0032             | 13            |               |          |
| ---        | 0.0014             | 10            |               |          |

### Coefficients

|                             |                             |
|-----------------------------|-----------------------------|
| D <sub>85</sub> = 0.1655 mm | D <sub>30</sub> = 0.0115 mm |
| D <sub>60</sub> = 0.0526 mm | D <sub>15</sub> = 0.0046 mm |
| D <sub>50</sub> = 0.0327 mm | D <sub>10</sub> = 0.0014 mm |
| C <sub>u</sub> = N/A        | C <sub>c</sub> = N/A        |

### Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

### Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---



|                     |                                   |             |     |
|---------------------|-----------------------------------|-------------|-----|
| Client:             | Moretrench American Corp.         |             |     |
| Project Name:       | Shepley Landfill                  |             |     |
| Project Location:   | Devens, MA                        |             |     |
| GTX #:              | 11659                             |             |     |
| Start Date:         | 9/27/2012                         | Tested By:  | ema |
| End Date:           | 10/2/2012                         | Checked By: | jdt |
| Boring #:           | ---                               |             |     |
| Sample #:           | LPM-1                             |             |     |
| Depth:              | ---                               |             |     |
| Visual Description: | Moist, yellowish brown sandy silt |             |     |

## Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter by ASTM D 5084 Constant Volume

Sample Type: Remolded Permeant Fluid: De-aired Distilled water  
 Orientation: Vertical Cell #: 12/2  
 Sample Preparation: Test specimen compacted with moderate effort at the as-received moisture content . Trimmings moisture content = 21.6%

| Parameter               | Initial | Final |
|-------------------------|---------|-------|
| Height, in              | 2.70    | 2.31  |
| Diameter, in            | 2.85    | 2.85  |
| Area, in <sup>2</sup>   | 6.38    | 6.38  |
| Volume, in <sup>3</sup> | 17.2    | 14.7  |
| Mass, g                 | 467     | 473   |
| Bulk Density, pcf       | 103     | 122   |
| Moisture Content, %     | 22.6    | 24.1  |
| Dry Density, pcf        | 84.1    | 98.3  |
| Degree of Saturation, % | ---     | 95    |

### B COEFFICIENT DETERMINATION

Cell Pressure, psi: 95.0 Pressure Increment, psi: 4.96  
 Sample Pressure, psi: 92.9 B Coefficient: 0.98

### FLOW DATA

| Date | Trial # | Pressure, psi |        | Manometer Readings |                |                                | Elapsed Time, sec | Gradient | Permeability K, cm/sec | Temp, °C | R <sub>t</sub> | Permeability K @ 20 °C, cm/sec |
|------|---------|---------------|--------|--------------------|----------------|--------------------------------|-------------------|----------|------------------------|----------|----------------|--------------------------------|
|      |         | Cell          | Sample | Z <sub>1</sub>     | Z <sub>2</sub> | Z <sub>1</sub> -Z <sub>2</sub> |                   |          |                        |          |                |                                |
| 10/1 | 1       | 90            | 88     | 7.0                | 6.0            | 1.0                            | 19                | 15.0     | 2.9E-06                | 20       | 1.000          | 2.9E-06                        |
| 10/1 | 2       | 90            | 88     | 7.0                | 6.0            | 1.0                            | 19                | 15.0     | 2.9E-06                | 20       | 1.000          | 2.9E-06                        |
| 10/1 | 3       | 90            | 88     | 7.0                | 6.0            | 1.0                            | 19                | 15.0     | 2.9E-06                | 20       | 1.000          | 2.9E-06                        |
| 10/1 | 4       | 90            | 88     | 7.0                | 6.0            | 1.0                            | 19                | 15.0     | 2.9E-06                | 20       | 1.000          | 2.9E-06                        |

**PERMEABILITY AT 20° C:  $2.9 \times 10^{-6}$  cm/sec (@ 2 psi effective stress)**



## **APPENDIX I**

### **Results of Laboratory Landfill Liner Repair Destructive Testing**





|                   |                           |              |
|-------------------|---------------------------|--------------|
| Client:           | Moretrench American Corp. |              |
| Project Name:     | Shepley Landfill          |              |
| Project Location: | Devens, MA                |              |
| Installer:        | ---                       |              |
| GTX #:            | 11659                     |              |
| Test Date:        | 10/19/12                  |              |
| Tested By:        | meo                       | Report #: 1  |
| Checked By:       | md                        | Page: 1 of 3 |

## Integrity of Nonreinforced Geomembrane Seams Produced Using Thermo-Fusion Methods by ASTM D 6392 peel & shear destructive test

|                    |                  |                  |               |
|--------------------|------------------|------------------|---------------|
| Upper Geomembrane: | 40 mil black PVC | Testing Machine: | Instron 1123  |
| Lower Geomembrane: | 30 mil grey PVC  | Testing Speed:   | 20 in/min     |
| Seaming Method:    | Glue Method      | Grips:           | ATS pneumatic |
|                    |                  | Specimen Size:   | 1 in x 8 in   |

|            |                |               |          |
|------------|----------------|---------------|----------|
| Sample ID: | Liner Sample 1 | Machine ID:   | 66       |
| Seam ID:   | ---            | Welder ID:    | HH       |
|            |                | Date Sampled: | 10/09/12 |

| Specimen Number | Peel Strength |                    |              |        |                    |              | Shear Strength |               |              |
|-----------------|---------------|--------------------|--------------|--------|--------------------|--------------|----------------|---------------|--------------|
|                 | Weld A        |                    |              | Weld B |                    |              |                |               |              |
|                 | lb./in        | Seam Separation, % | Failure Type | lb./in | Seam Separation, % | Failure Type | lb./in         | Elongation, % | Rupture Mode |
| 1               | 34            | 100%               | AD           | ---    | ---                | ---          | 58             | 450%          | both         |
| 2               | 36            | 100%               | AD           | ---    | ---                | ---          | 59             | 500%          | both         |
| 3               | 39            | 100%               | AD           | ---    | ---                | ---          | 59             | 500%          | both         |
| 4               | 34            | 100%               | AD           | ---    | ---                | ---          | 55             | 550%          | both         |
| 5               | 34            | 100%               | AD           | ---    | ---                | ---          | 56             | 600%          | both         |
| Average         | 35            | ---                | ---          | ---    | ---                | ---          | 57             | ---           | ---          |

Comments: Estimate of seam separation visually determined based upon area of separated bond to the nearest 5%.

Shear test halted for HDPE and LMDPE materials once specimen has elongated 50%.  
Shear test halted for PVC, fPP, LLDPE, VFPE and VLDPE once specimen has elongated past machine capacity.

Rupture mode for specimens with >50% elongation (HDPE and LMDPE) or > machine capacity (PVC, fPP, LLDPE, VFPE and VLDPE) interpreted as occurring in the membrane that exhibits yielding.

Notes: These results apply only to the sample tested for the specific test conditions. The test procedures employed follow accepted industry practice and the indicated test method. GeoTesting Express has no specific knowledge as to conditioning, origin, sampling procedure or intended use of the material.



|                   |                           |              |
|-------------------|---------------------------|--------------|
| Client:           | Moretrench American Corp. |              |
| Project Name:     | Shepley Landfill          |              |
| Project Location: | Devens, MA                |              |
| Installer:        | ---                       |              |
| GTX #:            | 11659                     |              |
| Test Date:        | 10/19/12                  |              |
| Tested By:        | meo                       | Report #: 1  |
| Checked By:       | md                        | Page: 2 of 3 |

## Integrity of Nonreinforced Geomembrane Seams Produced Using Thermo-Fusion Methods by ASTM D 6392 peel & shear destructive test

|                    |                  |                  |               |
|--------------------|------------------|------------------|---------------|
| Upper Geomembrane: | 40 mil black PVC | Testing Machine: | Instron 1123  |
| Lower Geomembrane: | 30 mil grey PVC  | Testing Speed:   | 20 in/min     |
| Seaming Method:    | Glue Method      | Grips:           | ATS pneumatic |
|                    |                  | Specimen Size:   | 1 in x 8 in   |

|            |                |               |          |
|------------|----------------|---------------|----------|
| Sample ID: | Liner Sample 2 | Machine ID:   | 66       |
| Seam ID:   | ---            | Welder ID:    | HH       |
|            |                | Date Sampled: | 10/09/12 |

| Specimen Number | Peel Strength |                    |              |        |                    |              | Shear Strength |               |              |
|-----------------|---------------|--------------------|--------------|--------|--------------------|--------------|----------------|---------------|--------------|
|                 | Weld A        |                    |              | Weld B |                    |              |                |               |              |
|                 | lb./in        | Seam Separation, % | Failure Type | lb./in | Seam Separation, % | Failure Type | lb./in         | Elongation, % | Rupture Mode |
| 1               | 32            | 100%               | AD           | ---    | ---                | ---          | 57             | 450%          | both         |
| 2               | 29            | 100%               | AD           | ---    | ---                | ---          | 52             | 500%          | both         |
| 3               | 26            | 100%               | AD           | ---    | ---                | ---          | 53             | 550%          | both         |
| 4               | 21            | 100%               | AD           | ---    | ---                | ---          | 56             | 450%          | both         |
| 5               | 18            | 100%               | AD           | ---    | ---                | ---          | 57             | 500%          | both         |
| Average         | 25            | ---                | ---          | ---    | ---                | ---          | 55             | ---           | ---          |

Comments: Estimate of seam separation visually determined based upon area of separated bond to the nearest 5%.

Shear test halted for HDPE and LMDPE materials once specimen has elongated 50%.  
Shear test halted for PVC, fPP, LLDPE, VFPE and VLDPE once specimen has elongated past machine capacity.

Rupture mode for specimens with >50% elongation (HDPE and LMDPE) or > machine capacity (PVC, fPP, LLDPE, VFPE and VLDPE) interpreted as occurring in the membrane that exhibits yielding.

Notes: These results apply only to the sample tested for the specific test conditions. The test procedures employed follow accepted industry practice and the indicated test method. GeoTesting Express has no specific knowledge as to conditioning, origin, sampling procedure or intended use of the material.



|                   |                           |              |
|-------------------|---------------------------|--------------|
| Client:           | Moretrench American Corp. |              |
| Project Name:     | Shepley Landfill          |              |
| Project Location: | Devens, MA                |              |
| Installer:        | ---                       |              |
| GTX #:            | 11659                     |              |
| Test Date:        | 10/19/12                  |              |
| Tested By:        | meo                       | Report #: 1  |
| Checked By:       | md                        | Page: 3 of 3 |

## Integrity of Nonreinforced Geomembrane Seams Produced Using Thermo-Fusion Methods by ASTM D 6392 peel & shear destructive test

|                    |                  |                  |               |
|--------------------|------------------|------------------|---------------|
| Upper Geomembrane: | 40 mil black PVC | Testing Machine: | Instron 1123  |
| Lower Geomembrane: | 30 mil grey PVC  | Testing Speed:   | 20 in/min     |
| Seaming Method:    | Glue Method      | Grips:           | ATS pneumatic |
|                    |                  | Specimen Size:   | 1 in x 8 in   |

|            |                |               |          |
|------------|----------------|---------------|----------|
| Sample ID: | Liner Sample 3 | Machine ID:   | 66       |
| Seam ID:   | ---            | Welder ID:    | HH       |
|            |                | Date Sampled: | 10/09/12 |

| Specimen Number | Peel Strength |                    |              |        |                    |              | Shear Strength |               |              |
|-----------------|---------------|--------------------|--------------|--------|--------------------|--------------|----------------|---------------|--------------|
|                 | Weld A        |                    |              | Weld B |                    |              |                |               |              |
|                 | lb./in        | Seam Separation, % | Failure Type | lb./in | Seam Separation, % | Failure Type | lb./in         | Elongation, % | Rupture Mode |
| 1               | 27            | 100%               | AD           | ---    | ---                | ---          | 57             | 650%          | both         |
| 2               | 31            | 100%               | AD           | ---    | ---                | ---          | 58             | 700%          | both         |
| 3               | 35            | 100%               | AD           | ---    | ---                | ---          | 56             | 750%          | both         |
| 4               | 32            | 100%               | AD           | ---    | ---                | ---          | 57             | 600%          | both         |
| 5               | 31            | 100%               | AD           | ---    | ---                | ---          | 59             | 700%          | both         |
| Average         | 31            | ---                | ---          | ---    | ---                | ---          | 57             | ---           | ---          |

Comments: Estimate of seam separation visually determined based upon area of separated bond to the nearest 5%.

Shear test halted for HDPE and LMDPE materials once specimen has elongated 50%.  
Shear test halted for PVC, fPP, LLDPE, VFPE and VLDPE once specimen has elongated past machine capacity.

Rupture mode for specimens with >50% elongation (HDPE and LMDPE) or > machine capacity (PVC, fPP, LLDPE, VFPE and VLDPE) interpreted as occurring in the membrane that exhibits yielding.

Notes: These results apply only to the sample tested for the specific test conditions. The test procedures employed follow accepted industry practice and the indicated test method. GeoTesting Express has no specific knowledge as to conditioning, origin, sampling procedure or intended use of the material.



## **APPENDIX J**

### **Contractors Quality Control Reports**

**(See CD Included Separately)**

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                      |                                          |             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                      | REPORT NUMBER<br>815                     | Page 1 of 2 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                      | DATE<br>23 Jul 2012 - Monday             |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                      | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | WEATHER<br>Weather Caused No Delay<br>Temperature Min 68 °F, Max 87 °F; No Precipitation; 5 MPH Wind |                                          |             |
| <b>QC NARRATIVES</b><br><br><b>Contractor/Subcontractor &amp; Area of Responsibility for work:</b><br>Sovereign - Provided oversight of Mortrench and it subcontractors. Provided on-site QC and documentation<br>Mortrech - Provided oversight of its subcontractors WSP Sells and Gatsby Grounds<br>WSP Sells - Pre-contruction Survey<br>Gatsby Grounds - Mowing<br><br><b>Activities in Progress (List by Activity Number)</b><br>DFW: Site Preparation in progress<br><br><b>Quality Control Inspections and Activities (List by Feature of Work)</b><br>No QC inspection conducted during the day.<br><br><b>Did anything develop that may lead to a Change Order/Claim?</b><br>No developments that may lead to a Change Oder during the day.<br><br><b>Were there any Delays in Work Progress today?</b><br>No delays in work progress during the day.<br><br><b>General Comments:</b><br>Work Completed During the Day:<br><br>Sovereign: Provided oversight and on-site QC of Moretrench and their subcontractors. Took photo documentation of exsisting conditions along the barrier wall alignment and work platform areas prior to mowing. Photo IDs: 072312-01 through -51.<br><br>Moretrench: Provided oversight of their subcontractors WSP Sells and Gatsby Grounds.<br><br>Gatsby Grounds: Conducted mowing activites in area of barrier wall and working platform<br>WSP Sells: Completed pre-construction survey of grade, barrier wall alignment, and off-sets along the working platform area.<br><br>After discovering landfill liner in the area to the south / southwest of the current stockpiled soils it was determined by Sovereign and Moretrench to moving the proposed staggering area from this location the area east of the the current stockpiled soils.<br><br><b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP reviewed and signed.<br>Gatsby Grounds mowing equipment inspected prior to use. |                                                                                                      |                                          |             |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                      |                                          |             |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                      |                                          |             |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                      |                                          |             |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                      |                                          |             |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                      | REPORT NUMBER<br>815 <span style="float: right;">Page 2 of 2</span> |                           |          |                      |                        |                 |           |                      |     |     |           |                      |     |     |           |          |     |      |           |             |     |     |                                  |  |           |      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|---------------------------------------------------------------------|---------------------------|----------|----------------------|------------------------|-----------------|-----------|----------------------|-----|-----|-----------|----------------------|-----|-----|-----------|----------|-----|------|-----------|-------------|-----|-----|----------------------------------|--|-----------|------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                      | DATE<br>23 Jul 2012 - Monday                                        |                           |          |                      |                        |                 |           |                      |     |     |           |                      |     |     |           |          |     |      |           |             |     |     |                                  |  |           |      |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                      | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                            |                           |          |                      |                        |                 |           |                      |     |     |           |                      |     |     |           |          |     |      |           |             |     |     |                                  |  |           |      |
| <b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                      |                                                                     |                           |          |                      |                        |                 |           |                      |     |     |           |                      |     |     |           |          |     |      |           |             |     |     |                                  |  |           |      |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>Today was the first day on site for the following contractor:</b><br>Sovereign<br><b>No contractors had their last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                      |                                                                     |                           |          |                      |                        |                 |           |                      |     |     |           |                      |     |     |           |          |     |      |           |             |     |     |                                  |  |           |      |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>LANDSCAPE CONTRACTOR</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">2.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.5</td> </tr> <tr> <td>Moretrech</td> <td>SURVEYOR</td> <td style="text-align: right;">2.0</td> <td style="text-align: right;">13.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">9.3</td> </tr> <tr> <td colspan="2">Total hours worked to date: 32.8</td> <td style="text-align: right;">Total 5.0</td> <td style="text-align: right;">32.8</td> </tr> </tbody> </table> |                      |                                                                     |                           | Employer | Labor Classification | Number of<br>Employees | Hours<br>Worked | Moretrech | LANDSCAPE CONTRACTOR | 1.0 | 2.0 | Moretrech | SUPER - CONSTRUCTION | 1.0 | 8.5 | Moretrech | SURVEYOR | 2.0 | 13.0 | Sovereign | SUPER - JOB | 1.0 | 9.3 | Total hours worked to date: 32.8 |  | Total 5.0 | 32.8 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Labor Classification | Number of<br>Employees                                              | Hours<br>Worked           |          |                      |                        |                 |           |                      |     |     |           |                      |     |     |           |          |     |      |           |             |     |     |                                  |  |           |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | LANDSCAPE CONTRACTOR | 1.0                                                                 | 2.0                       |          |                      |                        |                 |           |                      |     |     |           |                      |     |     |           |          |     |      |           |             |     |     |                                  |  |           |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | SUPER - CONSTRUCTION | 1.0                                                                 | 8.5                       |          |                      |                        |                 |           |                      |     |     |           |                      |     |     |           |          |     |      |           |             |     |     |                                  |  |           |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | SURVEYOR             | 2.0                                                                 | 13.0                      |          |                      |                        |                 |           |                      |     |     |           |                      |     |     |           |          |     |      |           |             |     |     |                                  |  |           |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | SUPER - JOB          | 1.0                                                                 | 9.3                       |          |                      |                        |                 |           |                      |     |     |           |                      |     |     |           |          |     |      |           |             |     |     |                                  |  |           |      |
| Total hours worked to date: 32.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                      | Total 5.0                                                           | 32.8                      |          |                      |                        |                 |           |                      |     |     |           |                      |     |     |           |          |     |      |           |             |     |     |                                  |  |           |      |
| <b>EQUIPMENT HOURS</b><br><b>No equipment hours were Reported today</b><br>Total operating hours to date: 0.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                      |                                                                     |                           |          |                      |                        |                 |           |                      |     |     |           |                      |     |     |           |          |     |      |           |             |     |     |                                  |  |           |      |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                      |                                                                     |                           |          |                      |                        |                 |           |                      |     |     |           |                      |     |     |           |          |     |      |           |             |     |     |                                  |  |           |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                      |                                                                     |                           |          |                      |                        |                 |           |                      |     |     |           |                      |     |     |           |          |     |      |           |             |     |     |                                  |  |           |      |
| <b>CONTRACTOR CERTIFICATION</b> <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                      |                                                                     |                           |          |                      |                        |                 |           |                      |     |     |           |                      |     |     |           |          |     |      |           |             |     |     |                                  |  |           |      |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                      | DATE                                                                | SUPERINTENDENT'S INITIALS |          |                      |                        |                 |           |                      |     |     |           |                      |     |     |           |          |     |      |           |             |     |     |                                  |  |           |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                      |                                                                     | DATE                      |          |                      |                        |                 |           |                      |     |     |           |                      |     |     |           |          |     |      |           |             |     |     |                                  |  |           |      |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                      |                                          |             |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                      | REPORT NUMBER<br>816                     | Page 1 of 2 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                      | DATE<br>24 Jul 2012 - Tuesday            |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                      | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | WEATHER<br>Weather Caused No Delay<br>Temperature Min 76 °F, Max 86 °F; No Precipitation; 5 MPH Wind |                                          |             |
| <b>QC NARRATIVES</b><br><br><b>Contractor/Subcontractor &amp; Area of Responsibility for work:</b><br>Sovereign - Provided oversight of Mortrench. Provided on-site QC and documentation<br>Mortrech - Conducted layout of staggering area.<br><br><b>Activities in Progress (List by Activity Number)</b><br>DFW: Site Preparation in progress<br><br><b>Quality Control Inspections and Activities (List by Feature of Work)</b><br>No QC inspection conducted during the day.<br><br><b>Did anything develop that may lead to a Change Order/Claim?</b><br>No developments that may lead to a Change Oder during the day.<br><br><b>Were there any Delays in Work Progress today?</b><br>No delays in work progress during the day.<br><br><b>General Comments:</b><br>Work Completed During the Day:<br><br>Sovereign: Provided oversight and on-site QC of Moretrench. Took photo documentation of of pre-construction conditions along the barrier wall alignment and work platform areas following to mowing and pre-construction survey activites completed on the prior day. Photo IDs: 072412-01 through -29. Continued demoblization of storage container used during pre-construction sub-surface investigation.<br><br>Moretrench: Condcuted layout of staggering area to the east of the exsisting soil stock piles.<br><br><b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. |                                                                                                      |                                          |             |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                      |                                          |             |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                      |                                          |             |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                      |                                          |             |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                      |                                          |             |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                      |                                          |             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                      |                                          |             |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                      | REPORT NUMBER<br>816 <span style="float: right;">Page 2 of 2</span> |                                   |          |                      |                        |                 |           |                      |     |     |           |             |     |     |                                  |  |           |     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|---------------------------------------------------------------------|-----------------------------------|----------|----------------------|------------------------|-----------------|-----------|----------------------|-----|-----|-----------|-------------|-----|-----|----------------------------------|--|-----------|-----|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                      | DATE<br>24 Jul 2012 - Tuesday                                       |                                   |          |                      |                        |                 |           |                      |     |     |           |             |     |     |                                  |  |           |     |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                      | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                            |                                   |          |                      |                        |                 |           |                      |     |     |           |             |     |     |                                  |  |           |     |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table border="0" style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">4.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">4.0</td> </tr> <tr> <td colspan="2">Total hours worked to date: 40.8</td> <td style="text-align: right;">Total 2.0</td> <td style="text-align: right;">8.0</td> </tr> </tbody> </table> |                      |                                                                     |                                   | Employer | Labor Classification | Number of<br>Employees | Hours<br>Worked | Moretrech | SUPER - CONSTRUCTION | 1.0 | 4.0 | Sovereign | SUPER - JOB | 1.0 | 4.0 | Total hours worked to date: 40.8 |  | Total 2.0 | 8.0 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Labor Classification | Number of<br>Employees                                              | Hours<br>Worked                   |          |                      |                        |                 |           |                      |     |     |           |             |     |     |                                  |  |           |     |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | SUPER - CONSTRUCTION | 1.0                                                                 | 4.0                               |          |                      |                        |                 |           |                      |     |     |           |             |     |     |                                  |  |           |     |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | SUPER - JOB          | 1.0                                                                 | 4.0                               |          |                      |                        |                 |           |                      |     |     |           |             |     |     |                                  |  |           |     |
| Total hours worked to date: 40.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                      | Total 2.0                                                           | 8.0                               |          |                      |                        |                 |           |                      |     |     |           |             |     |     |                                  |  |           |     |
| <b>EQUIPMENT HOURS</b><br><b>No equipment hours were Reported today</b><br>Total operating hours to date: 0.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                      |                                                                     |                                   |          |                      |                        |                 |           |                      |     |     |           |             |     |     |                                  |  |           |     |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                      |                                                                     |                                   |          |                      |                        |                 |           |                      |     |     |           |             |     |     |                                  |  |           |     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                      |                                                                     |                                   |          |                      |                        |                 |           |                      |     |     |           |             |     |     |                                  |  |           |     |
| CONTRACTOR CERTIFICATION <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                      |                                                                     |                                   |          |                      |                        |                 |           |                      |     |     |           |             |     |     |                                  |  |           |     |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                      | DATE                                                                | SUPERINTENDENT'S INITIALS<br>DATE |          |                      |                        |                 |           |                      |     |     |           |             |     |     |                                  |  |           |     |



|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                       |                                          |             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                       | REPORT NUMBER<br>817                     | Page 1 of 2 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                       | DATE<br>25 Jul 2012 - Wednesday          |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                       | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | WEATHER<br>Weather Caused No Delay<br>Temperature Min 67 °F, Max 73 °F; No Precipitation; 15 MPH Wind |                                          |             |
| <b>QC NARRATIVES</b><br><br><b>Contractor/Subcontractor &amp; Area of Responsibility for work:</b><br>Sovereign - Provided oversight of Drillex. Provided on-site QC and documentation.<br>Drillex - Conducted decommissioning of four (4) EPA piezometers<br><br><b>Activities in Progress (List by Activity Number)</b><br>DFW: Mobilization / Site Preparation in progress<br><br><b>Quality Control Inspections and Activities (List by Feature of Work)</b><br>No QC inspection conducted during the day.<br><br><b>Did anything develop that may lead to a Change Order/Claim?</b><br>No developments that may lead to a Change Oder during the day.<br><br><b>Were there any Delays in Work Progress today?</b><br>No delays in work progress during the day.<br><br><b>General Comments:</b><br>Work Completed During the Day:<br><br>Sovereign: Provided oversight and on-site QC of Drillex. Took photo documentation of post abandonment of EPA RSK piezometers along the barrier wall alignment and work platform areas. Photo IDs: 072512-01 through -04.<br><br>Drillex: Condcuted abandonment of EPA piezometers RSK-26,-29,-30 and -33. RSK-26,-30 and -30 were unable to be completely removed from the subsurface. RSK-26 and -30 were cut approximately 1 foot below grade surface. RSK-33 was removed down to 5 feet below grade surface by removing the first 5 feet of casing. RSK-29 was able to be removed completely from the subsurface. All piezometers were grouted to surface with Portalnd Cement.<br><br>Materials Brought on Site:<br><br>Type I/II Portland Cement<br><br><b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP reviewed prior to start of work activities. |                                                                                                       |                                          |             |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                       |                                          |             |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                       |                                          |             |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                       |                                          |             |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                       |                                          |             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                       |                                          |             |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             | REPORT NUMBER<br>817 <span style="float: right;">Page 2 of 2</span> |                                       |                 |                             |                                |                         |              |                  |     |     |           |             |     |     |                                  |  |           |     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|---------------------------------------------------------------------|---------------------------------------|-----------------|-----------------------------|--------------------------------|-------------------------|--------------|------------------|-----|-----|-----------|-------------|-----|-----|----------------------------------|--|-----------|-----|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                             | DATE<br>25 Jul 2012 - Wednesday                                     |                                       |                 |                             |                                |                         |              |                  |     |     |           |             |     |     |                                  |  |           |     |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                             | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                            |                                       |                 |                             |                                |                         |              |                  |     |     |           |             |     |     |                                  |  |           |     |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><br><b>Today was the first day on site for the following contractor:</b><br>Drillex Env.<br><br><b>Today was the last day on site for the following contractor:</b><br>Drillex Env.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                             |                                                                     |                                       |                 |                             |                                |                         |              |                  |     |     |           |             |     |     |                                  |  |           |     |
| <b>LABOR HOURS</b><br><br><b>The following labor hours were Reported today:</b> <table border="0" style="width: 100%;"> <thead> <tr> <th style="text-align: left;"><u>Employer</u></th> <th style="text-align: left;"><u>Labor Classification</u></th> <th style="text-align: right;"><u>Number of<br/>Employees</u></th> <th style="text-align: right;"><u>Hours<br/>Worked</u></th> </tr> </thead> <tbody> <tr> <td>Drillex Env.</td> <td>DRILLER OPERATOR</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">2.5</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">3.5</td> </tr> <tr> <td colspan="2">Total hours worked to date: 46.8</td> <td style="text-align: right;">Total 2.0</td> <td style="text-align: right;">6.0</td> </tr> </tbody> </table> |                             |                                                                     |                                       | <u>Employer</u> | <u>Labor Classification</u> | <u>Number of<br/>Employees</u> | <u>Hours<br/>Worked</u> | Drillex Env. | DRILLER OPERATOR | 1.0 | 2.5 | Sovereign | SUPER - JOB | 1.0 | 3.5 | Total hours worked to date: 46.8 |  | Total 2.0 | 6.0 |
| <u>Employer</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <u>Labor Classification</u> | <u>Number of<br/>Employees</u>                                      | <u>Hours<br/>Worked</u>               |                 |                             |                                |                         |              |                  |     |     |           |             |     |     |                                  |  |           |     |
| Drillex Env.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | DRILLER OPERATOR            | 1.0                                                                 | 2.5                                   |                 |                             |                                |                         |              |                  |     |     |           |             |     |     |                                  |  |           |     |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | SUPER - JOB                 | 1.0                                                                 | 3.5                                   |                 |                             |                                |                         |              |                  |     |     |           |             |     |     |                                  |  |           |     |
| Total hours worked to date: 46.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                             | Total 2.0                                                           | 6.0                                   |                 |                             |                                |                         |              |                  |     |     |           |             |     |     |                                  |  |           |     |
| <b>EQUIPMENT HOURS</b><br><br><b>No equipment hours were Reported today</b><br><br>Total operating hours to date: 0.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                             |                                                                     |                                       |                 |                             |                                |                         |              |                  |     |     |           |             |     |     |                                  |  |           |     |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                             |                                                                     |                                       |                 |                             |                                |                         |              |                  |     |     |           |             |     |     |                                  |  |           |     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                             |                                                                     |                                       |                 |                             |                                |                         |              |                  |     |     |           |             |     |     |                                  |  |           |     |
| <b>CONTRACTOR CERTIFICATION</b> <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                             |                                                                     |                                       |                 |                             |                                |                         |              |                  |     |     |           |             |     |     |                                  |  |           |     |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                             | DATE                                                                | SUPERINTENDENT'S INITIALS<br><br>DATE |                 |                             |                                |                         |              |                  |     |     |           |             |     |     |                                  |  |           |     |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                      |                                          |             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                      | REPORT NUMBER<br>822                     | Page 1 of 2 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                      | DATE<br>30 Jul 2012 - Monday             |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                      | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | WEATHER<br>Weather Caused No Delay<br>Temperature Min 60 °F, Max 78 °F; No Precipitation; 5 MPH Wind |                                          |             |
| <b>QC NARRATIVES</b><br><br><b>Contractor/Subcontractor &amp; Area of Responsibility for work:</b><br>Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.<br>Moretrench - Conducted site prep. and mobilization<br><br><b>Activities in Progress (List by Activity Number)</b><br>DFW: Mobilization / Site Preparation in progress<br><br><b>Quality Control Inspections and Activities (List by Feature of Work)</b><br>No QC inspection conducted during the day.<br><br><b>Did anything develop that may lead to a Change Order/Claim?</b><br>No developments that may lead to a Change Oder during the day.<br><br><b>Were there any Delays in Work Progress today?</b><br>No delays in work progress during the day.<br><br><b>General Comments:</b><br>Work Completed During the Day:<br><br>Sovereign: Provided oversight and on-site QC of Moretrench.<br><br>Moretrench: Condcuted the fusing of approximately 1,000 linear feet of 6" HDPE pipe.<br><br>Materials Brought on Site:<br><br>4" and 6" HDPE<br><br>Equipment Brought on Site:<br><br>Temporary Facilities (port-o-john)<br><br>Catapillar 938G Loader<br><br><b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviued prior to start of work activties. |                                                                                                      |                                          |             |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                      |                                          |             |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                      |                                          |             |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                      |                                          |             |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                      |                                          |             |
| Empty space for additional notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                      |                                          |             |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                          | REPORT NUMBER<br>822 <div style="text-align: right;">Page 2 of 2</div> |                 |               |                      |                     |                 |           |                          |      |      |           |          |       |      |           |                      |     |      |           |             |     |     |  |  |       |     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|------------------------------------------------------------------------|-----------------|---------------|----------------------|---------------------|-----------------|-----------|--------------------------|------|------|-----------|----------|-------|------|-----------|----------------------|-----|------|-----------|-------------|-----|-----|--|--|-------|-----|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          | DATE<br>30 Jul 2012 - Monday                                           |                 |               |                      |                     |                 |           |                          |      |      |           |          |       |      |           |                      |     |      |           |             |     |     |  |  |       |     |
| CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                          |                                                                        |                 |               |                      |                     |                 |           |                          |      |      |           |          |       |      |           |                      |     |      |           |             |     |     |  |  |       |     |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          |                                                                        |                 |               |                      |                     |                 |           |                          |      |      |           |          |       |      |           |                      |     |      |           |             |     |     |  |  |       |     |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left; width: 25%;">Employer</th> <th style="text-align: left; width: 40%;">Labor Classification</th> <th style="text-align: right; width: 15%;">Number of Employees</th> <th style="text-align: right; width: 20%;">Hours Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">2.0</td> <td style="text-align: right;">16.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td colspan="2"></td> <td style="text-align: right; border-top: 1px solid black;">Total</td> <td style="text-align: right; border-top: 1px solid black;">5.0</td> </tr> </tbody> </table> <div style="margin-top: 10px;">             Total hours worked to date: 86.8           </div> |                          |                                                                        |                 | Employer      | Labor Classification | Number of Employees | Hours Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 1.0  | 8.0  | Moretrech | LABORERS | 1.0   | 8.0  | Moretrech | SUPER - CONSTRUCTION | 2.0 | 16.0 | Sovereign | SUPER - JOB | 1.0 | 8.0 |  |  | Total | 5.0 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Labor Classification     | Number of Employees                                                    | Hours Worked    |               |                      |                     |                 |           |                          |      |      |           |          |       |      |           |                      |     |      |           |             |     |     |  |  |       |     |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | HEAVY-EQUIPMENT OPERATOR | 1.0                                                                    | 8.0             |               |                      |                     |                 |           |                          |      |      |           |          |       |      |           |                      |     |      |           |             |     |     |  |  |       |     |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | LABORERS                 | 1.0                                                                    | 8.0             |               |                      |                     |                 |           |                          |      |      |           |          |       |      |           |                      |     |      |           |             |     |     |  |  |       |     |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | SUPER - CONSTRUCTION     | 2.0                                                                    | 16.0            |               |                      |                     |                 |           |                          |      |      |           |          |       |      |           |                      |     |      |           |             |     |     |  |  |       |     |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | SUPER - JOB              | 1.0                                                                    | 8.0             |               |                      |                     |                 |           |                          |      |      |           |          |       |      |           |                      |     |      |           |             |     |     |  |  |       |     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          | Total                                                                  | 5.0             |               |                      |                     |                 |           |                          |      |      |           |          |       |      |           |                      |     |      |           |             |     |     |  |  |       |     |
| <b>EQUIPMENT HOURS</b><br><b>The following equipment hours were Reported today:</b> <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left; width: 25%;">Serial Number</th> <th style="text-align: left; width: 40%;">Description</th> <th style="text-align: right; width: 15%;">Idle Hours</th> <th style="text-align: right; width: 20%;">Operating Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">0.50</td> <td style="text-align: right;">8.00</td> </tr> <tr> <td colspan="2"></td> <td style="text-align: right; border-top: 1px solid black;">Total</td> <td style="text-align: right; border-top: 1px solid black;">0.50</td> </tr> </tbody> </table> <div style="margin-top: 10px;">             Total operating hours to date: 8.00           </div>                                                                                                                                                                                                                                                                                                                                                                                                                                     |                          |                                                                        |                 | Serial Number | Description          | Idle Hours          | Operating Hours | N/A       | Loader                   | 0.50 | 8.00 |           |          | Total | 0.50 |           |                      |     |      |           |             |     |     |  |  |       |     |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Description              | Idle Hours                                                             | Operating Hours |               |                      |                     |                 |           |                          |      |      |           |          |       |      |           |                      |     |      |           |             |     |     |  |  |       |     |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Loader                   | 0.50                                                                   | 8.00            |               |                      |                     |                 |           |                          |      |      |           |          |       |      |           |                      |     |      |           |             |     |     |  |  |       |     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          | Total                                                                  | 0.50            |               |                      |                     |                 |           |                          |      |      |           |          |       |      |           |                      |     |      |           |             |     |     |  |  |       |     |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                          |                                                                        |                 |               |                      |                     |                 |           |                          |      |      |           |          |       |      |           |                      |     |      |           |             |     |     |  |  |       |     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          |                                                                        |                 |               |                      |                     |                 |           |                          |      |      |           |          |       |      |           |                      |     |      |           |             |     |     |  |  |       |     |
| <b>CONTRACTOR CERTIFICATION</b> <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          |                                                                        |                 |               |                      |                     |                 |           |                          |      |      |           |          |       |      |           |                      |     |      |           |             |     |     |  |  |       |     |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | DATE                     | SUPERINTENDENT'S INITIALS                                              | DATE            |               |                      |                     |                 |           |                          |      |      |           |          |       |      |           |                      |     |      |           |             |     |     |  |  |       |     |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                      |                                          |             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                      | REPORT NUMBER<br>823                     | Page 1 of 2 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                      | DATE<br>31 Jul 2012 - Tuesday            |             |
| PROJECT<br>Shepley's Landfill, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                      | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | WEATHER<br>Weather Caused No Delay<br>Temperature Min 63 °F, Max 83 °F; No Precipitation; 5 MPH Wind |                                          |             |
| <b>QC NARRATIVES</b><br><br><b>Contractor/Subcontractor &amp; Area of Responsibility for work:</b><br>Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.<br>Moretrench - Conducted site prep. and mobilization<br><br><b>Activities in Progress (List by Activity Number)</b><br>DFW: Mobilization / Site Preparation in progress<br><br><b>Quality Control Inspections and Activities (List by Feature of Work)</b><br>No QC inspection conducted during the day.<br><br><b>Did anything develop that may lead to a Change Order/Claim?</b><br>No developments that may lead to a Change Oder during the day.<br><br><b>Were there any Delays in Work Progress today?</b><br>No delays in work progress during the day.<br><br><b>General Comments:</b><br>Work Completed During the Day:<br><br>Sovereign: Provided oversight and on-site QC of Moretrench. Took photo documentation of road construction activities. Photo IDs: 07312-01 through -13.<br><br>Moretrench: Condcuted the fusing of approximately 1,000 linear feet of 6" HDPE pipe. Cut and graded road out to staging area around exsisting soil stockpiles<br><br>Materials Brought on Site:<br><br>Geo-tech fabric for road base<br><br>Equipment Brought on Site:<br><br>John Deere 450J Dozer<br><br><b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviuewed prior to start of work activties. |                                                                                                      |                                          |             |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                      |                                          |             |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                      |                                          |             |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                      |                                          |             |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                      |                                          |             |
| Empty space for additional notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                      |                                          |             |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          | REPORT NUMBER<br>823 <span style="float: right;">Page 2 of 2</span> |                 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |       |      |                                      |             |     |      |  |  |       |     |                                   |  |  |      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---------------------------------------------------------------------|-----------------|---------------|----------------------|---------------------|-----------------|-----------|--------------------------|------|------|-----------|----------|------|------|-----------|----------------------|-------|------|--------------------------------------|-------------|-----|------|--|--|-------|-----|-----------------------------------|--|--|------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          | DATE<br>31 Jul 2012 - Tuesday                                       |                 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |       |      |                                      |             |     |      |  |  |       |     |                                   |  |  |      |
| CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                          |                                                                     |                 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |       |      |                                      |             |     |      |  |  |       |     |                                   |  |  |      |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |                                                                     |                 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |       |      |                                      |             |     |      |  |  |       |     |                                   |  |  |      |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left; width: 25%;">Employer</th> <th style="text-align: left; width: 40%;">Labor Classification</th> <th style="text-align: right; width: 15%;">Number of Employees</th> <th style="text-align: right; width: 20%;">Hours Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">2.0</td> <td style="text-align: right;">16.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td colspan="2"></td> <td style="text-align: right; border-top: 1px solid black;">Total</td> <td style="text-align: right; border-top: 1px solid black;">5.0</td> </tr> <tr> <td colspan="2">Total hours worked to date: 126.8</td> <td></td> <td style="text-align: right; border-top: 1px solid black;">40.0</td> </tr> </tbody> </table> |                          |                                                                     |                 | Employer      | Labor Classification | Number of Employees | Hours Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 1.0  | 8.0  | Moretrech | LABORERS | 1.0  | 8.0  | Moretrech | SUPER - CONSTRUCTION | 2.0   | 16.0 | Sovereign                            | SUPER - JOB | 1.0 | 8.0  |  |  | Total | 5.0 | Total hours worked to date: 126.8 |  |  | 40.0 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Labor Classification     | Number of Employees                                                 | Hours Worked    |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |       |      |                                      |             |     |      |  |  |       |     |                                   |  |  |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | HEAVY-EQUIPMENT OPERATOR | 1.0                                                                 | 8.0             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |       |      |                                      |             |     |      |  |  |       |     |                                   |  |  |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | LABORERS                 | 1.0                                                                 | 8.0             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |       |      |                                      |             |     |      |  |  |       |     |                                   |  |  |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | SUPER - CONSTRUCTION     | 2.0                                                                 | 16.0            |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |       |      |                                      |             |     |      |  |  |       |     |                                   |  |  |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | SUPER - JOB              | 1.0                                                                 | 8.0             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |       |      |                                      |             |     |      |  |  |       |     |                                   |  |  |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                          | Total                                                               | 5.0             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |       |      |                                      |             |     |      |  |  |       |     |                                   |  |  |      |
| Total hours worked to date: 126.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                          |                                                                     | 40.0            |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |       |      |                                      |             |     |      |  |  |       |     |                                   |  |  |      |
| <b>EQUIPMENT HOURS</b><br><b>The following equipment hours were Reported today:</b> <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left; width: 25%;">Serial Number</th> <th style="text-align: left; width: 40%;">Description</th> <th style="text-align: right; width: 15%;">Idle Hours</th> <th style="text-align: right; width: 20%;">Operating Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">4.50</td> <td style="text-align: right;">4.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">4.50</td> <td style="text-align: right;">4.00</td> </tr> <tr> <td colspan="2"></td> <td style="text-align: right; border-top: 1px solid black;">Total</td> <td style="text-align: right; border-top: 1px solid black;">9.00</td> </tr> <tr> <td colspan="2">Total operating hours to date: 16.00</td> <td></td> <td style="text-align: right; border-top: 1px solid black;">8.00</td> </tr> </tbody> </table>                                                                                                                                                                                                                                                                                                       |                          |                                                                     |                 | Serial Number | Description          | Idle Hours          | Operating Hours | N/A       | Bull Dozer               | 4.50 | 4.00 | N/A       | Loader   | 4.50 | 4.00 |           |                      | Total | 9.00 | Total operating hours to date: 16.00 |             |     | 8.00 |  |  |       |     |                                   |  |  |      |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Description              | Idle Hours                                                          | Operating Hours |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |       |      |                                      |             |     |      |  |  |       |     |                                   |  |  |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Bull Dozer               | 4.50                                                                | 4.00            |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |       |      |                                      |             |     |      |  |  |       |     |                                   |  |  |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Loader                   | 4.50                                                                | 4.00            |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |       |      |                                      |             |     |      |  |  |       |     |                                   |  |  |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                          | Total                                                               | 9.00            |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |       |      |                                      |             |     |      |  |  |       |     |                                   |  |  |      |
| Total operating hours to date: 16.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          |                                                                     | 8.00            |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |       |      |                                      |             |     |      |  |  |       |     |                                   |  |  |      |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          |                                                                     |                 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |       |      |                                      |             |     |      |  |  |       |     |                                   |  |  |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                          |                                                                     |                 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |       |      |                                      |             |     |      |  |  |       |     |                                   |  |  |      |
| <b>CONTRACTOR CERTIFICATION</b> <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                          |                                                                     |                 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |       |      |                                      |             |     |      |  |  |       |     |                                   |  |  |      |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | DATE                     | SUPERINTENDENT'S INITIALS                                           | DATE            |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |       |      |                                      |             |     |      |  |  |       |     |                                   |  |  |      |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |                                                                                                       |             |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  | REPORT NUMBER<br>824                                                                                  | Page 1 of 2 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  | DATE<br>01 Aug 2012 - Wednesday                                                                       |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                              |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  | WEATHER<br>Weather Caused No Delay<br>Temperature Min 67 °F, Max 85 °F; No Precipitation; 10 MPH Wind |             |
| <b>QC NARRATIVES</b><br><br><b>Contractor/Subcontractor &amp; Area of Responsibility for work:</b><br>Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.<br>Moretrench - Conducted site prep. and mobilization<br><br><b>Activities in Progress (List by Activity Number)</b><br>DFW: Mobilization / Site Preparation in progress<br><br><b>Quality Control Inspections and Activities (List by Feature of Work)</b><br>Processed gravel inspected upon arrival. No defecencies noted<br><br><b>Did anything develop that may lead to a Change Order/Claim?</b><br>No developments that may lead to a Change Oder during the day.<br><br><b>Were there any Delays in Work Progress today?</b><br>Due to malfunction of hot plate associated with pipe fuser the remaining HDPE pipe was unable be fused during the day.<br>New hot plate to arrive on 8/3/12 to compelete fusing.<br><br><b>General Comments:</b><br>Work Completed During the Day:<br><br>Sovereign: Provided oversight and on-site QC of Moretrench. Took photo documentation of road construction. Photo IDs: 080112-01 through -11.<br><br>Moretrench: Condcuted the fusing of approximately 450 linear feet of 4" HDPE pipe. Graded and stoned road out to staging area around exsisting soil stockpiles<br><br>Materials Brought on Site:<br><br>127.08 tons of 1 1/2" MassDOT approved Processed Gravel<br><br>Equipment Brought on Site:<br><br>None<br><br><b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviuewed prior to start of work activties. |  |                                                                                                       |             |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |                                                                                                       |             |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |                                                                                                       |             |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                                                       |             |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |                                                                                                       |             |

|                                                                                                                                                                                                                                                                                                                       |                             |                                                                        |                        |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|------------------------------------------------------------------------|------------------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                   |                             | REPORT NUMBER<br>824 <div style="text-align: right;">Page 2 of 2</div> |                        |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                      |                             | DATE<br>01 Aug 2012 - Wednesday                                        |                        |
| CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                                                                                                                                                                                                                                              |                             |                                                                        |                        |
| <b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                       |                             |                                                                        |                        |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)                                                                                                                                                                                                                                    |                             |                                                                        |                        |
| <b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                       |                             |                                                                        |                        |
| <b>LABOR HOURS</b>                                                                                                                                                                                                                                                                                                    |                             |                                                                        |                        |
| <b>The following labor hours were Reported today:</b>                                                                                                                                                                                                                                                                 |                             |                                                                        |                        |
| <u>Employer</u>                                                                                                                                                                                                                                                                                                       | <u>Labor Classification</u> | <u>Number of Employees</u>                                             | <u>Hours Worked</u>    |
| Moretrech                                                                                                                                                                                                                                                                                                             | HEAVY-EQUIPMENT OPERATOR    | 1.0                                                                    | 8.0                    |
| Moretrech                                                                                                                                                                                                                                                                                                             | LABORERS                    | 1.0                                                                    | 8.0                    |
| Moretrech                                                                                                                                                                                                                                                                                                             | SUPER - CONSTRUCTION        | 2.0                                                                    | 16.0                   |
| Sovereign                                                                                                                                                                                                                                                                                                             | SUPER - JOB                 | 2.0                                                                    | 8.0                    |
| Total hours worked to date: 166.8                                                                                                                                                                                                                                                                                     |                             | Total                                                                  | 6.0                    |
|                                                                                                                                                                                                                                                                                                                       |                             |                                                                        |                        |
| <b>EQUIPMENT HOURS</b>                                                                                                                                                                                                                                                                                                |                             |                                                                        |                        |
| <b>The following equipment hours were Reported today:</b>                                                                                                                                                                                                                                                             |                             |                                                                        |                        |
| <u>Serial Number</u>                                                                                                                                                                                                                                                                                                  | <u>Description</u>          | <u>Idle Hours</u>                                                      | <u>Operating Hours</u> |
| N/A                                                                                                                                                                                                                                                                                                                   | Bull Dozer                  | 5.50                                                                   | 3.00                   |
| N/A                                                                                                                                                                                                                                                                                                                   | Loader                      | 3.50                                                                   | 5.00                   |
| Total operating hours to date: 24.00                                                                                                                                                                                                                                                                                  |                             | Total                                                                  | 9.00                   |
|                                                                                                                                                                                                                                                                                                                       |                             |                                                                        |                        |
| <b>ACCIDENT REPORTING</b> (Describe accidents)                                                                                                                                                                                                                                                                        |                             |                                                                        |                        |
| <b>No accidents reported today</b>                                                                                                                                                                                                                                                                                    |                             |                                                                        |                        |
|                                                                                                                                                                                                                                                                                                                       |                             |                                                                        |                        |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above. |                             |                                                                        |                        |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                         | DATE                        | SUPERINTENDENT'S INITIALS                                              | DATE                   |



|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                 |                                          |             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                 | REPORT NUMBER<br>825                     | Page 1 of 2 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                 | DATE<br>02 Aug 2012 - Thursday           |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                 | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | WEATHER<br>Weather Caused Non-Critical Delay<br>Temperature Min 72 °F, Max 91 °F; No Precipitation; 10 MPH Wind |                                          |             |
| <b>QC NARRATIVES</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                 |                                          |             |
| <b>Contractor/Subcontractor &amp; Area of Responsibility for work:</b><br>Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.<br>Moretrench - Conducted site prep. and mobilization                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                 |                                          |             |
| <b>Activities in Progress (List by Activity Number)</b><br>DFW: Mobilization / Site Preparation in progress                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                 |                                          |             |
| <b>Quality Control Inspections and Activities (List by Feature of Work)</b><br>Processed gravel inspected upon arrival. No defecencies noted.<br><br>All three Alder tanks inspected upon arrival. All clean and no defecencies noted.                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                 |                                          |             |
| <b>Did anything develop that may lead to a Change Order/Claim?</b><br>No developments that may lead to a Change Oder during the day.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                 |                                          |             |
| <b>Were there any Delays in Work Progress today?</b><br>Half an hour delay in work during the day due to observed lighting strikes in the area.<br>After a half an hour lighting ceased. No precipitation observed on site.                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                 |                                          |             |
| <b>General Comments:</b><br>Work Completed During the Day:<br><br>Sovereign: Provided oversight and on-site QC of Moretrench. Took photo documentation of construction of laydown area. Photo IDs: 080212-01 through -06.<br><br>Moretrench: Finished construction of haul road and laydown area. Improved access road. Began shaking out of fittings for slurry piping.<br><br>Materials Brought on Site:<br><br>130.28 tons of 1 1/2" MassDOT approved Processed Gravel<br><br>900 (50 lbs) bags of Hydrogel Wyoming Bentonite. Certified NSF / ANSI 60<br><br>Equipment Brought on Site:<br><br>Three (3) Alder Tanks<br><br>Moretrech Job Trailer and Tool Trailer. |                                                                                                                 |                                          |             |
| <b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviewed prior to start of work activties.                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                 |                                          |             |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                 |                                          |             |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                 |                                          |             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                 |                                          |             |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                          | REPORT NUMBER<br>825                     |                           | Page 2 of 2 |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |            |      |           |                      |     |      |           |             |     |     |                                   |  |           |      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|------------------------------------------|---------------------------|-------------|---------------|----------------------|------------------------|--------------------|-----------|--------------------------|------|------|-----------|----------|------|------|--------------------------------------|------------------|------------|------|-----------|----------------------|-----|------|-----------|-------------|-----|-----|-----------------------------------|--|-----------|------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                          | DATE<br>02 Aug 2012 - Thursday           |                           |             |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |            |      |           |                      |     |      |           |             |     |     |                                   |  |           |      |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                          | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |                           |             |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |            |      |           |                      |     |      |           |             |     |     |                                   |  |           |      |
| <b>QC REQUIREMENTS</b><br>No QC requirements were completed today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                          |                                          |                           |             |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |            |      |           |                      |     |      |           |             |     |     |                                   |  |           |      |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br>No QC Deficiency items were issued today<br>No Deficiency items were corrected today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                          |                                          |                           |             |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |            |      |           |                      |     |      |           |             |     |     |                                   |  |           |      |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br>No contractors had their first or last day on site today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          |                                          |                           |             |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |            |      |           |                      |     |      |           |             |     |     |                                   |  |           |      |
| <b>LABOR HOURS</b><br>The following labor hours were Reported today: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: center;">Number of<br/>Employees</th> <th style="text-align: center;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: center;">1.0</td> <td style="text-align: center;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: center;">1.0</td> <td style="text-align: center;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td style="text-align: center;">1.0</td> <td style="text-align: center;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: center;">2.0</td> <td style="text-align: center;">16.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: center;">1.0</td> <td style="text-align: center;">8.0</td> </tr> <tr> <td colspan="2">Total hours worked to date: 214.8</td> <td style="text-align: center;">Total 6.0</td> <td style="text-align: center;">48.0</td> </tr> </tbody> </table> |                          |                                          |                           |             | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 1.0  | 8.0  | Moretrech | LABORERS | 1.0  | 8.0  | Moretrech                            | PROJECT ENGINEER | 1.0        | 8.0  | Moretrech | SUPER - CONSTRUCTION | 2.0 | 16.0 | Sovereign | SUPER - JOB | 1.0 | 8.0 | Total hours worked to date: 214.8 |  | Total 6.0 | 48.0 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Labor Classification     | Number of<br>Employees                   | Hours<br>Worked           |             |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |            |      |           |                      |     |      |           |             |     |     |                                   |  |           |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | HEAVY-EQUIPMENT OPERATOR | 1.0                                      | 8.0                       |             |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |            |      |           |                      |     |      |           |             |     |     |                                   |  |           |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | LABORERS                 | 1.0                                      | 8.0                       |             |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |            |      |           |                      |     |      |           |             |     |     |                                   |  |           |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | PROJECT ENGINEER         | 1.0                                      | 8.0                       |             |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |            |      |           |                      |     |      |           |             |     |     |                                   |  |           |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | SUPER - CONSTRUCTION     | 2.0                                      | 16.0                      |             |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |            |      |           |                      |     |      |           |             |     |     |                                   |  |           |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | SUPER - JOB              | 1.0                                      | 8.0                       |             |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |            |      |           |                      |     |      |           |             |     |     |                                   |  |           |      |
| Total hours worked to date: 214.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                          | Total 6.0                                | 48.0                      |             |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |            |      |           |                      |     |      |           |             |     |     |                                   |  |           |      |
| <b>EQUIPMENT HOURS</b><br>The following equipment hours were Reported today: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: center;">Idle<br/>Hours</th> <th style="text-align: center;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: center;">5.50</td> <td style="text-align: center;">3.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: center;">3.50</td> <td style="text-align: center;">5.00</td> </tr> <tr> <td colspan="2">Total operating hours to date: 32.00</td> <td style="text-align: center;">Total 9.00</td> <td style="text-align: center;">8.00</td> </tr> </tbody> </table>                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                          |                                          |                           |             | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A       | Bull Dozer               | 5.50 | 3.00 | N/A       | Loader   | 3.50 | 5.00 | Total operating hours to date: 32.00 |                  | Total 9.00 | 8.00 |           |                      |     |      |           |             |     |     |                                   |  |           |      |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Description              | Idle<br>Hours                            | Operating<br>Hours        |             |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |            |      |           |                      |     |      |           |             |     |     |                                   |  |           |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Bull Dozer               | 5.50                                     | 3.00                      |             |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |            |      |           |                      |     |      |           |             |     |     |                                   |  |           |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Loader                   | 3.50                                     | 5.00                      |             |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |            |      |           |                      |     |      |           |             |     |     |                                   |  |           |      |
| Total operating hours to date: 32.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                          | Total 9.00                               | 8.00                      |             |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |            |      |           |                      |     |      |           |             |     |     |                                   |  |           |      |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br>No accidents reported today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                          |                                          |                           |             |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |            |      |           |                      |     |      |           |             |     |     |                                   |  |           |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                          |                                          |                           |             |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |            |      |           |                      |     |      |           |             |     |     |                                   |  |           |      |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          |                                          |                           |             |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |            |      |           |                      |     |      |           |             |     |     |                                   |  |           |      |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                          | DATE                                     | SUPERINTENDENT'S INITIALS |             |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |            |      |           |                      |     |      |           |             |     |     |                                   |  |           |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                          |                                          |                           |             |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |            |      |           |                      |     |      |           |             |     |     |                                   |  |           |      |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                       |                                          |             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                       | REPORT NUMBER<br>826                     | Page 1 of 2 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                       | DATE<br>03 Aug 2012 - Friday             |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                       | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | WEATHER<br>Weather Caused No Delay<br>Temperature Min 72 °F, Max 91 °F; No Precipitation; 10 MPH Wind |                                          |             |
| <b>QC NARRATIVES</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                       |                                          |             |
| <b>Contractor/Subcontractor &amp; Area of Responsibility for work:</b><br>Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.<br>Moretrench - Conducted site prep. and mobilization                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                       |                                          |             |
| <b>Activities in Progress (List by Activity Number)</b><br>DFW: Mobilization / Site Preparation in progress                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                       |                                          |             |
| <b>Quality Control Inspections and Activities (List by Feature of Work)</b><br>Silt fence installation was inspected during and after completion. No deficiencies noted.<br>Hay bales to be installed the following work day.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                       |                                          |             |
| <b>Did anything develop that may lead to a Change Order/Claim?</b><br>No developments that may lead to a Change Oder during the day.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                       |                                          |             |
| <b>Were there any Delays in Work Progress today?</b><br>No delays in work progress encountered during the day.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                       |                                          |             |
| <b>General Comments:</b><br>Work Completed During the Day:<br><br>Sovereign: Provided oversight and on-site QC of Moretrench. Took photo documentation of silt fence installation activities. Photo IDs: 080312-01 through -06.<br><br>Moretrench: Mobilized and began setting up slurry plant, generator, fuel cell, and miscellaneous fittings and hoses. Wired generator and job trailers. Gatsby Grounds, sub to Moretrench, installed approximately 500 linear feet of silt fencing east of the barrier wall alignment along the exsisting chain link fence. Silt fence extended from approximately barrier wall station 2+50 to 7+00.<br><br>Materials Brought on Site:<br><br>500 feet of silt fence<br><br>Equipment Brought on Site:<br><br>Sovereign job trailer<br>Slurry plant<br>Generator<br>Fuel cell<br>Miscellaneous fittings, hoses, and pumps.<br>Crane Mats |                                                                                                       |                                          |             |
| <b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviuewed prior to start of work activities.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                       |                                          |             |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                       |                                          |             |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                       |                                          |             |
| Empty space for additional notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                       |                                          |             |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                          | REPORT NUMBER<br>826 <span style="float: right;">Page 2 of 2</span> |                           |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                    |             |      |           |                  |     |     |           |                      |     |     |           |             |     |     |                                   |  |           |      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---------------------------------------------------------------------|---------------------------|---------------|----------------------|------------------------|--------------------|-----------|--------------------------|------|------|-----------|----------|------|------|--------------------------------------|--------------------|-------------|------|-----------|------------------|-----|-----|-----------|----------------------|-----|-----|-----------|-------------|-----|-----|-----------------------------------|--|-----------|------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          | DATE<br>03 Aug 2012 - Friday                                        |                           |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                    |             |      |           |                  |     |     |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                          |                                                                     |                           |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                    |             |      |           |                  |     |     |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| <b>QC REQUIREMENTS</b><br>No QC requirements were completed today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |                                                                     |                           |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                    |             |      |           |                  |     |     |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br>No QC Deficiency items were issued today<br>No Deficiency items were corrected today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                          |                                                                     |                           |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                    |             |      |           |                  |     |     |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br>No contractors had their first or last day on site today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                          |                                                                     |                           |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                    |             |      |           |                  |     |     |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| <b>LABOR HOURS</b><br>The following labor hours were Reported today: <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>LANDSCAPE LABORERS</td> <td style="text-align: right;">2.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total hours worked to date: 264.8</td> <td style="text-align: right; border-top: 1px solid black;">Total 7.0</td> <td style="text-align: right; border-top: 1px solid black;">50.0</td> </tr> </tbody> </table> |                          |                                                                     |                           | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 1.0  | 8.0  | Moretrech | LABORERS | 1.0  | 8.0  | Moretrech                            | LANDSCAPE LABORERS | 2.0         | 10.0 | Moretrech | PROJECT ENGINEER | 1.0 | 8.0 | Moretrech | SUPER - CONSTRUCTION | 1.0 | 8.0 | Sovereign | SUPER - JOB | 1.0 | 8.0 | Total hours worked to date: 264.8 |  | Total 7.0 | 50.0 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Labor Classification     | Number of<br>Employees                                              | Hours<br>Worked           |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                    |             |      |           |                  |     |     |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | HEAVY-EQUIPMENT OPERATOR | 1.0                                                                 | 8.0                       |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                    |             |      |           |                  |     |     |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | LABORERS                 | 1.0                                                                 | 8.0                       |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                    |             |      |           |                  |     |     |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | LANDSCAPE LABORERS       | 2.0                                                                 | 10.0                      |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                    |             |      |           |                  |     |     |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | PROJECT ENGINEER         | 1.0                                                                 | 8.0                       |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                    |             |      |           |                  |     |     |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | SUPER - CONSTRUCTION     | 1.0                                                                 | 8.0                       |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                    |             |      |           |                  |     |     |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | SUPER - JOB              | 1.0                                                                 | 8.0                       |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                    |             |      |           |                  |     |     |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| Total hours worked to date: 264.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          | Total 7.0                                                           | 50.0                      |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                    |             |      |           |                  |     |     |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| <b>EQUIPMENT HOURS</b><br>The following equipment hours were Reported today: <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle<br/>Hours</th> <th style="text-align: right;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">1.50</td> <td style="text-align: right;">7.00</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total operating hours to date: 39.00</td> <td style="text-align: right; border-top: 1px solid black;">Total 10.00</td> <td style="text-align: right; border-top: 1px solid black;">7.00</td> </tr> </tbody> </table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |                                                                     |                           | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A       | Bull Dozer               | 8.50 | 0.00 | N/A       | Loader   | 1.50 | 7.00 | Total operating hours to date: 39.00 |                    | Total 10.00 | 7.00 |           |                  |     |     |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Description              | Idle<br>Hours                                                       | Operating<br>Hours        |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                    |             |      |           |                  |     |     |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Bull Dozer               | 8.50                                                                | 0.00                      |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                    |             |      |           |                  |     |     |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Loader                   | 1.50                                                                | 7.00                      |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                    |             |      |           |                  |     |     |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| Total operating hours to date: 39.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                          | Total 10.00                                                         | 7.00                      |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                    |             |      |           |                  |     |     |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br>No accidents reported today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                          |                                                                     |                           |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                    |             |      |           |                  |     |     |           |                      |     |     |           |             |     |     |                                   |  |           |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          |                                                                     |                           |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                    |             |      |           |                  |     |     |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          |                                                                     |                           |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                    |             |      |           |                  |     |     |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                          | DATE                                                                | SUPERINTENDENT'S INITIALS |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                    |             |      |           |                  |     |     |           |                      |     |     |           |             |     |     |                                   |  |           |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          |                                                                     | DATE                      |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                    |             |      |           |                  |     |     |           |                      |     |     |           |             |     |     |                                   |  |           |      |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                       |                                          |             |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                       | REPORT NUMBER<br>829                     | Page 1 of 2 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                       | DATE<br>06 Aug 2012 - Monday             |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                       | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | WEATHER<br>Weather Caused No Delay<br>Temperature Min 65 °F, Max 85 °F; No Precipitation; 10 MPH Wind |                                          |             |
| <b>QC NARRATIVES</b><br><br><b>Contractor/Subcontractor &amp; Area of Responsibility for work:</b><br>Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.<br>Moretrench - Conducted site prep. and mobilization<br><br><b>Activities in Progress (List by Activity Number)</b><br>DFW: Mobilization / Site Preparation in progress<br><br><b>Quality Control Inspections and Activities (List by Feature of Work)</b><br>Hay bales to be inspected upon delivery. No deficiencies noted. All materials accepted.<br>Bentonite 50 pound bags and bulk bags inspected upon delivery. No deficiencies noted. All materials accepted.<br><br><b>Did anything develop that may lead to a Change Order/Claim?</b><br>No developments that may lead to a Change Oder during the day.<br><br><b>Were there any Delays in Work Progress today?</b><br>No delays in work progress encountered during the day.<br><br><b>General Comments:</b><br>Work Completed During the Day:<br><br>Sovereign: Provided oversight and on-site QC of Moretrench. Cleaned out storage container used during pre-construction sub-surface investigation for removal from site.<br><br>Moretrench: Began setting up slurry plant pumps. Continued to fuse HDPE pipe and began to run pipe out from the slurry plant to the hydrant at site entrance on Cook St. Gatsby Grounds, sub to Moretrench, installed 128 bails of hay along the silt fencing east of the barrier wall alignment. Began double staking each hay bail. Errosion control activities to be completed the following day.<br><br>Materials Brought on Site:<br><br>128 Hay Bails<br><br>900 (50 lb) bags of Hydogel Wyoming Bentonite<br>17 Bulk Bags of Hydogel Wyoming Bentonite<br><br>Equipment Brought on Site:<br><br>T750 Bob Cat<br><br><b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviued prior to start of work activties. |                                                                                                       |                                          |             |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                       |                                          |             |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                       |                                          |             |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                       |                                          |             |
| Empty space for additional notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                       |                                          |             |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          | REPORT NUMBER<br>829                     |                           | Page 2 of 2 |               |                      |                     |                 |           |                          |       |      |           |          |      |      |           |                    |      |      |           |                  |       |       |           |                      |     |      |           |             |     |      |       |  |     |      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|------------------------------------------|---------------------------|-------------|---------------|----------------------|---------------------|-----------------|-----------|--------------------------|-------|------|-----------|----------|------|------|-----------|--------------------|------|------|-----------|------------------|-------|-------|-----------|----------------------|-----|------|-----------|-------------|-----|------|-------|--|-----|------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                          | DATE<br>06 Aug 2012 - Monday             |                           |             |               |                      |                     |                 |           |                          |       |      |           |          |      |      |           |                    |      |      |           |                  |       |       |           |                      |     |      |           |             |     |      |       |  |     |      |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |                           |             |               |                      |                     |                 |           |                          |       |      |           |          |      |      |           |                    |      |      |           |                  |       |       |           |                      |     |      |           |             |     |      |       |  |     |      |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          |                                          |                           |             |               |                      |                     |                 |           |                          |       |      |           |          |      |      |           |                    |      |      |           |                  |       |       |           |                      |     |      |           |             |     |      |       |  |     |      |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |                                          |                           |             |               |                      |                     |                 |           |                          |       |      |           |          |      |      |           |                    |      |      |           |                  |       |       |           |                      |     |      |           |             |     |      |       |  |     |      |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table border="1"> <thead> <tr> <th>Employer</th> <th>Labor Classification</th> <th>Number of Employees</th> <th>Hours Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td>1.0</td> <td>10.0</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td>1.0</td> <td>10.0</td> </tr> <tr> <td>Moretrech</td> <td>LANDSCAPE LABORERS</td> <td>2.0</td> <td>9.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td>1.0</td> <td>10.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td>1.0</td> <td>10.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td>1.0</td> <td>10.0</td> </tr> <tr> <td colspan="2">Total</td> <td>7.0</td> <td>59.0</td> </tr> </tbody> </table> Total hours worked to date: 323.8 |                          |                                          |                           |             | Employer      | Labor Classification | Number of Employees | Hours Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 1.0   | 10.0 | Moretrech | LABORERS | 1.0  | 10.0 | Moretrech | LANDSCAPE LABORERS | 2.0  | 9.0  | Moretrech | PROJECT ENGINEER | 1.0   | 10.0  | Moretrech | SUPER - CONSTRUCTION | 1.0 | 10.0 | Sovereign | SUPER - JOB | 1.0 | 10.0 | Total |  | 7.0 | 59.0 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Labor Classification     | Number of Employees                      | Hours Worked              |             |               |                      |                     |                 |           |                          |       |      |           |          |      |      |           |                    |      |      |           |                  |       |       |           |                      |     |      |           |             |     |      |       |  |     |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | HEAVY-EQUIPMENT OPERATOR | 1.0                                      | 10.0                      |             |               |                      |                     |                 |           |                          |       |      |           |          |      |      |           |                    |      |      |           |                  |       |       |           |                      |     |      |           |             |     |      |       |  |     |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | LABORERS                 | 1.0                                      | 10.0                      |             |               |                      |                     |                 |           |                          |       |      |           |          |      |      |           |                    |      |      |           |                  |       |       |           |                      |     |      |           |             |     |      |       |  |     |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | LANDSCAPE LABORERS       | 2.0                                      | 9.0                       |             |               |                      |                     |                 |           |                          |       |      |           |          |      |      |           |                    |      |      |           |                  |       |       |           |                      |     |      |           |             |     |      |       |  |     |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | PROJECT ENGINEER         | 1.0                                      | 10.0                      |             |               |                      |                     |                 |           |                          |       |      |           |          |      |      |           |                    |      |      |           |                  |       |       |           |                      |     |      |           |             |     |      |       |  |     |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | SUPER - CONSTRUCTION     | 1.0                                      | 10.0                      |             |               |                      |                     |                 |           |                          |       |      |           |          |      |      |           |                    |      |      |           |                  |       |       |           |                      |     |      |           |             |     |      |       |  |     |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | SUPER - JOB              | 1.0                                      | 10.0                      |             |               |                      |                     |                 |           |                          |       |      |           |          |      |      |           |                    |      |      |           |                  |       |       |           |                      |     |      |           |             |     |      |       |  |     |      |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          | 7.0                                      | 59.0                      |             |               |                      |                     |                 |           |                          |       |      |           |          |      |      |           |                    |      |      |           |                  |       |       |           |                      |     |      |           |             |     |      |       |  |     |      |
| <b>EQUIPMENT HOURS</b><br><b>The following equipment hours were Reported today:</b> <table border="1"> <thead> <tr> <th>Serial Number</th> <th>Description</th> <th>Idle Hours</th> <th>Operating Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td>10.00</td> <td>0.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td>1.00</td> <td>9.00</td> </tr> <tr> <td>N/A</td> <td>Tracked Bobcat</td> <td>2.00</td> <td>2.50</td> </tr> <tr> <td colspan="2">Total</td> <td>13.00</td> <td>11.50</td> </tr> </tbody> </table> Total operating hours to date: 50.50                                                                                                                                                                                                                                                                                      |                          |                                          |                           |             | Serial Number | Description          | Idle Hours          | Operating Hours | N/A       | Bull Dozer               | 10.00 | 0.00 | N/A       | Loader   | 1.00 | 9.00 | N/A       | Tracked Bobcat     | 2.00 | 2.50 | Total     |                  | 13.00 | 11.50 |           |                      |     |      |           |             |     |      |       |  |     |      |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Description              | Idle Hours                               | Operating Hours           |             |               |                      |                     |                 |           |                          |       |      |           |          |      |      |           |                    |      |      |           |                  |       |       |           |                      |     |      |           |             |     |      |       |  |     |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Bull Dozer               | 10.00                                    | 0.00                      |             |               |                      |                     |                 |           |                          |       |      |           |          |      |      |           |                    |      |      |           |                  |       |       |           |                      |     |      |           |             |     |      |       |  |     |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Loader                   | 1.00                                     | 9.00                      |             |               |                      |                     |                 |           |                          |       |      |           |          |      |      |           |                    |      |      |           |                  |       |       |           |                      |     |      |           |             |     |      |       |  |     |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Tracked Bobcat           | 2.00                                     | 2.50                      |             |               |                      |                     |                 |           |                          |       |      |           |          |      |      |           |                    |      |      |           |                  |       |       |           |                      |     |      |           |             |     |      |       |  |     |      |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          | 13.00                                    | 11.50                     |             |               |                      |                     |                 |           |                          |       |      |           |          |      |      |           |                    |      |      |           |                  |       |       |           |                      |     |      |           |             |     |      |       |  |     |      |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          |                                          |                           |             |               |                      |                     |                 |           |                          |       |      |           |          |      |      |           |                    |      |      |           |                  |       |       |           |                      |     |      |           |             |     |      |       |  |     |      |
| <div style="height: 300px;"></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                          |                                          |                           |             |               |                      |                     |                 |           |                          |       |      |           |          |      |      |           |                    |      |      |           |                  |       |       |           |                      |     |      |           |             |     |      |       |  |     |      |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |                                          |                           |             |               |                      |                     |                 |           |                          |       |      |           |          |      |      |           |                    |      |      |           |                  |       |       |           |                      |     |      |           |             |     |      |       |  |     |      |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                          | DATE                                     | SUPERINTENDENT'S INITIALS |             | DATE          |                      |                     |                 |           |                          |       |      |           |          |      |      |           |                    |      |      |           |                  |       |       |           |                      |     |      |           |             |     |      |       |  |     |      |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                       |                                          |             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                       | REPORT NUMBER<br>830                     | Page 1 of 2 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                       | DATE<br>07 Aug 2012 - Tuesday            |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                       | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | WEATHER<br>Weather Caused No Delay<br>Temperature Min 63 °F, Max 87 °F; No Precipitation; 10 MPH Wind |                                          |             |
| <b>QC NARRATIVES</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                       |                                          |             |
| <b>Contractor/Subcontractor &amp; Area of Responsibility for work:</b><br>Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.<br>Moretrench - Conducted site prep. and mobilization                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                       |                                          |             |
| <b>Activities in Progress (List by Activity Number)</b><br>DFW: Mobilization / Site Preparation in progress                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                       |                                          |             |
| <b>Quality Control Inspections and Activities (List by Feature of Work)</b><br>Bentonite 50 pound bags and bulk bags inspected upon delivery. No deficiencies noted. All materials accepted.<br><br>Errrosion control installation (silt fence and hail bails) inspected during initial inspection. No deficiencies noted                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                       |                                          |             |
| <b>Did anything develop that may lead to a Change Order/Claim?</b><br>No developments that may lead to a Change Oder during the day.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                       |                                          |             |
| <b>Were there any Delays in Work Progress today?</b><br>No delays in work progress encountered during the day.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                       |                                          |             |
| <b>General Comments:</b><br>Work Completed During the Day:<br><br>Sovereign: Provided oversight and on-site QC of Moretrench. Conducted photograph documentation Photograph IDs: 080712-01 through 080712-14<br><br>Moretrench: Continued setting up pumps and piping for slurry plant and tanks. Continued to guse pipe and completed stretching to hydrant at site entrance on Cook St. Tested piping and flushed out water line. Began wiring slurry submersible pumps.<br><br>Materials Brought on Site:<br><br>1800 (50 lb) bags of Hydogel Wyoming Bentonite<br>17 Bulk Bags of Hydogel Wyoming Bentonite<br><br>Equipment Brought on Site:<br><br>Recieved backflow preventer and hydrant meter from Devens DPW (United Water) |                                                                                                       |                                          |             |
| <b>Verbal Instructions given by Government:</b><br>Randy LeCuyer (USACE construction rep) requested Sovereign and Moretrench install secondary containment around fuel cell, generator, and main slurry plant pump consisting of plactic sheeting and berm.                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                       |                                          |             |
| <b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviuewed prior to start of work activties.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                       |                                          |             |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><br><b>No preparatory inspections were held today</b><br><br><b>An initial inspection was held today for the following feature:</b><br>Mobilization / Site Prep.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                       |                                          |             |
| Empty space for additional notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                       |                                          |             |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                          | REPORT NUMBER<br>830 <span style="float: right;">Page 2 of 2</span> |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |     |           |             |     |     |                                   |  |           |      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---------------------------------------------------------------------|--------------------|---------------|----------------------|------------------------|--------------------|-----------|--------------------------|------|------|-----------|----------|------|------|--------------------------------------|------------------|-------------|------|-----------|----------------------|-----|-----|-----------|-------------|-----|-----|-----------------------------------|--|-----------|------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                          | DATE<br>07 Aug 2012 - Tuesday                                       |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| <b>ACTIVITY START/FINISH</b><br>No activities were started or finished today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                          | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                            |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| <b>QC REQUIREMENTS</b><br>No QC requirements were completed today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br>No QC Deficiency items were issued today<br>No Deficiency items were corrected today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br>No contractors had their first or last day on site today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| <b>LABOR HOURS</b><br>The following labor hours were Reported today: <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total hours worked to date: 363.8</td> <td style="text-align: right; border-top: 1px solid black;">Total 5.0</td> <td style="text-align: right; border-top: 1px solid black;">40.0</td> </tr> </tbody> </table> |                          |                                                                     |                    | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 1.0  | 8.0  | Moretrech | LABORERS | 1.0  | 8.0  | Moretrech                            | PROJECT ENGINEER | 1.0         | 8.0  | Moretrech | SUPER - CONSTRUCTION | 1.0 | 8.0 | Sovereign | SUPER - JOB | 1.0 | 8.0 | Total hours worked to date: 363.8 |  | Total 5.0 | 40.0 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Labor Classification     | Number of<br>Employees                                              | Hours<br>Worked    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | HEAVY-EQUIPMENT OPERATOR | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | LABORERS                 | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | PROJECT ENGINEER         | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | SUPER - CONSTRUCTION     | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | SUPER - JOB              | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| Total hours worked to date: 363.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          | Total 5.0                                                           | 40.0               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| <b>EQUIPMENT HOURS</b><br>The following equipment hours were Reported today: <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle<br/>Hours</th> <th style="text-align: right;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">2.00</td> <td style="text-align: right;">6.50</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total operating hours to date: 57.00</td> <td style="text-align: right; border-top: 1px solid black;">Total 10.50</td> <td style="text-align: right; border-top: 1px solid black;">6.50</td> </tr> </tbody> </table>                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          |                                                                     |                    | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A       | Bull Dozer               | 8.50 | 0.00 | N/A       | Loader   | 2.00 | 6.50 | Total operating hours to date: 57.00 |                  | Total 10.50 | 6.50 |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Description              | Idle<br>Hours                                                       | Operating<br>Hours |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Bull Dozer               | 8.50                                                                | 0.00               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Loader                   | 2.00                                                                | 6.50               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| Total operating hours to date: 57.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          | Total 10.50                                                         | 6.50               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br>No accidents reported today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |     |           |             |     |     |                                   |  |           |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | DATE                     | SUPERINTENDENT'S INITIALS                                           | DATE               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |     |           |             |     |     |                                   |  |           |      |



|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                      |                                          |             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                      | REPORT NUMBER<br>831                     | Page 1 of 2 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                      | DATE<br>08 Aug 2012 - Wednesday          |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                      | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | WEATHER<br>Weather Caused No Delay<br>Temperature Min 70 °F, Max 94 °F; No Precipitation; 5 MPH Wind |                                          |             |
| <b>QC NARRATIVES</b><br><br><b>Contractor/Subcontractor &amp; Area of Responsibility for work:</b><br>Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.<br>Moretrench - Conducted site prep. and mobilization. Began construction of working platform.<br><br><b>Activities in Progress (List by Activity Number)</b><br>DFW: Mobilization / Site Preparation in progress<br>DFW: Construction of Working Platform<br><br><b>Quality Control Inspections and Activities (List by Feature of Work)</b><br>No major QC inspections conducted during the day.<br><br><b>Did anything develop that may lead to a Change Order/Claim?</b><br>No developments that may lead to a Change Oder during the day.<br><br><b>Were there any Delays in Work Progress today?</b><br>No delays in work progress encountered during the day.<br><br><b>General Comments:</b><br>Work Completed During the Day:<br><br>Sovereign: Provided oversight and on-site QC of Moretrench. Conducted photograph documentation Photograph IDs: 080812-01 through 080812-10. Took all boring cores from previous SHL sub-surface investigates and added them to spoils pile.<br><br>Moretrench: Continued to fuse pip and setup piping for slurry plant and tanks. Continued wiring slurry submersible pumps. Setup secondary containment areas around fuel cell, genterator and main slurry plant pump. Began grubbing and grading first 300 feet of the working platform<br><br>Materials Brought on Site:<br><br>No additional materials brought on site during the day.<br><br>Equipment Brought on Site:<br><br>30 CY Dumpster (Waste Management)<br><br><b>Verbal Instructions given by Government:</b><br>No verbal instructions given by the government during the day.<br><br><b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviued prior to start of work activties. |                                                                                                      |                                          |             |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                      |                                          |             |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                      |                                          |             |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                      |                                          |             |
| Empty space for additional notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                      |                                          |             |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           | REPORT NUMBER<br>831                     |                           | Page 2 of 2 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|------------------------------------------|---------------------------|-------------|---------------|----------------------|---------------------|-----------------|-----------|--------------------------|------|------|-----------|----------|------|------|-----------|------------------|------|------|-----------|----------------------|-----|------|-----------|---------------------------|-----|-----|-----------|-------------|-----|-----|-------|--|-----|------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           | DATE<br>08 Aug 2012 - Wednesday          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br>No QC Deficiency items were issued today<br>No Deficiency items were corrected today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br>No contractors had their first or last day on site today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| <b>LABOR HOURS</b><br>The following labor hours were Reported today: <table border="1"> <thead> <tr> <th>Employer</th> <th>Labor Classification</th> <th>Number of Employees</th> <th>Hours Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td>2.0</td> <td>16.0</td> </tr> <tr> <td>Sovereign</td> <td>SAFETY ENGINEER - ON SITE</td> <td>1.0</td> <td>5.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td colspan="2">Total</td> <td>7.0</td> <td>53.0</td> </tr> </tbody> </table> Total hours worked to date: 416.8 |                           |                                          |                           |             | Employer      | Labor Classification | Number of Employees | Hours Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 1.0  | 8.0  | Moretrech | LABORERS | 1.0  | 8.0  | Moretrech | PROJECT ENGINEER | 1.0  | 8.0  | Moretrech | SUPER - CONSTRUCTION | 2.0 | 16.0 | Sovereign | SAFETY ENGINEER - ON SITE | 1.0 | 5.0 | Sovereign | SUPER - JOB | 1.0 | 8.0 | Total |  | 7.0 | 53.0 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Labor Classification      | Number of Employees                      | Hours Worked              |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | HEAVY-EQUIPMENT OPERATOR  | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | LABORERS                  | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | PROJECT ENGINEER          | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | SUPER - CONSTRUCTION      | 2.0                                      | 16.0                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | SAFETY ENGINEER - ON SITE | 1.0                                      | 5.0                       |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | SUPER - JOB               | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           | 7.0                                      | 53.0                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| <b>EQUIPMENT HOURS</b><br>The following equipment hours were Reported today: <table border="1"> <thead> <tr> <th>Serial Number</th> <th>Description</th> <th>Idle Hours</th> <th>Operating Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td>4.50</td> <td>4.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td>4.50</td> <td>4.00</td> </tr> <tr> <td colspan="2">Total</td> <td>9.00</td> <td>8.00</td> </tr> </tbody> </table> Total operating hours to date: 65.00                                                                                                                                                                                                                                                                                                                                                                        |                           |                                          |                           |             | Serial Number | Description          | Idle Hours          | Operating Hours | N/A       | Bull Dozer               | 4.50 | 4.00 | N/A       | Loader   | 4.50 | 4.00 | Total     |                  | 9.00 | 8.00 |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Description               | Idle Hours                               | Operating Hours           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Bull Dozer                | 4.50                                     | 4.00                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Loader                    | 4.50                                     | 4.00                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           | 9.00                                     | 8.00                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br>No accidents reported today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                           | DATE                                     | SUPERINTENDENT'S INITIALS | DATE        |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                      |                                          |             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                      | REPORT NUMBER<br>832                     | Page 1 of 2 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                      | DATE<br>09 Aug 2012 - Thursday           |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                      | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | WEATHER<br>Weather Caused No Delay<br>Temperature Min 70 °F, Max 95 °F; No Precipitation; 5 MPH Wind |                                          |             |
| <b>QC NARRATIVES</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                      |                                          |             |
| <b>Contractor/Subcontractor &amp; Area of Responsibility for work:</b><br>Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.<br>Moretrench - Conducted site prep. and mobilization. Continued construction of working platform.                                                                                                                                                                                                                                                                          |                                                                                                      |                                          |             |
| <b>Activities in Progress (List by Activity Number)</b><br>DFW: Mobilization / Site Preparation in progress<br>DFW: Construction of Working Platform                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                      |                                          |             |
| <b>Quality Control Inspections and Activities (List by Feature of Work)</b><br>Sovereign conducted Preparatory Phase meeting for DFW soil-bentonite wall construction.                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                      |                                          |             |
| <b>Did anything develop that may lead to a Change Order/Claim?</b><br>No developments that may lead to a Change Oder during the day.                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                      |                                          |             |
| <b>Were there any Delays in Work Progress today?</b><br>No delays in work progress encountered during the day.                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                      |                                          |             |
| <b>General Comments:</b><br>Work Completed During the Day:<br><br>Sovereign: Provided oversight and on-site QC of Moretrench.<br><br>Moretrench: Continued to fuse pip and setup piping for slurry plant and tanks. Completed wiring slurry submersible pumps. Continued grubbing and grading first 300 feet of the working platform<br><br>Materials Brought on Site:<br><br>No additional materials brought on site during the day.<br><br>Equipment Brought on Site:<br><br>No additional equipment was brought on site during the day. |                                                                                                      |                                          |             |
| <b>Verbal Instructions given by Government:</b><br>During preparatory phase meeting Randy LeCuyer (USACE) requested that Sovereign/Moretrench try to locate water shutoff valve prior to hydrant on Cook St. being used for water supply in case of emergency.                                                                                                                                                                                                                                                                             |                                                                                                      |                                          |             |
| <b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviued prior to start of work activties.                                                                                                                                                                                                                                                                                                                                               |                                                                                                      |                                          |             |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><br><b>A preparatory inspection was held today for the following feature:</b><br>Soil-Bentonite Wall Construct.                                                                                                                                                                                                                                                                                                                                       |                                                                                                      |                                          |             |
| <b>No initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                      |                                          |             |
| <b>ACTIVITY START/FINISH</b><br><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                      |                                          |             |
| Empty space for additional notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                      |                                          |             |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           | REPORT NUMBER<br>832 <span style="float: right;">Page 2 of 2</span> |                           |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |            |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------------------------------------------|---------------------------|---------------|----------------------|------------------------|--------------------|-----------|--------------------------|------|------|-----------|----------|------|------|--------------------------------------|------------------|------------|------|-----------|----------------------|-----|------|-----------|---------------------------|-----|-----|-----------|-------------|-----|-----|-----------------------------------|--|-----------|------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                           | DATE<br>09 Aug 2012 - Thursday                                      |                           |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |            |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           |                                                                     |                           |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |            |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| <b>QC REQUIREMENTS</b><br>No QC requirements were completed today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           |                                                                     |                           |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |            |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br>No QC Deficiency items were issued today<br>No Deficiency items were corrected today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           |                                                                     |                           |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |            |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br>No contractors had their first or last day on site today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           |                                                                     |                           |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |            |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| <b>LABOR HOURS</b><br>The following labor hours were Reported today: <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">2.0</td> <td style="text-align: right;">16.0</td> </tr> <tr> <td>Sovereign</td> <td>SAFETY ENGINEER - ON SITE</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total hours worked to date: 472.8</td> <td style="text-align: right; border-top: 1px solid black;">Total 7.0</td> <td style="text-align: right; border-top: 1px solid black;">56.0</td> </tr> </tbody> </table> |                           |                                                                     |                           | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 1.0  | 8.0  | Moretrech | LABORERS | 1.0  | 8.0  | Moretrech                            | PROJECT ENGINEER | 1.0        | 8.0  | Moretrech | SUPER - CONSTRUCTION | 2.0 | 16.0 | Sovereign | SAFETY ENGINEER - ON SITE | 1.0 | 8.0 | Sovereign | SUPER - JOB | 1.0 | 8.0 | Total hours worked to date: 472.8 |  | Total 7.0 | 56.0 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Labor Classification      | Number of<br>Employees                                              | Hours<br>Worked           |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |            |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | HEAVY-EQUIPMENT OPERATOR  | 1.0                                                                 | 8.0                       |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |            |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | LABORERS                  | 1.0                                                                 | 8.0                       |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |            |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | PROJECT ENGINEER          | 1.0                                                                 | 8.0                       |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |            |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | SUPER - CONSTRUCTION      | 2.0                                                                 | 16.0                      |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |            |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | SAFETY ENGINEER - ON SITE | 1.0                                                                 | 8.0                       |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |            |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | SUPER - JOB               | 1.0                                                                 | 8.0                       |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |            |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| Total hours worked to date: 472.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           | Total 7.0                                                           | 56.0                      |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |            |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| <b>EQUIPMENT HOURS</b><br>The following equipment hours were Reported today: <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle<br/>Hours</th> <th style="text-align: right;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">6.50</td> <td style="text-align: right;">2.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">2.50</td> <td style="text-align: right;">6.00</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total operating hours to date: 73.00</td> <td style="text-align: right; border-top: 1px solid black;">Total 9.00</td> <td style="text-align: right; border-top: 1px solid black;">8.00</td> </tr> </tbody> </table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                           |                                                                     |                           | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A       | Bull Dozer               | 6.50 | 2.00 | N/A       | Loader   | 2.50 | 6.00 | Total operating hours to date: 73.00 |                  | Total 9.00 | 8.00 |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Description               | Idle<br>Hours                                                       | Operating<br>Hours        |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |            |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Bull Dozer                | 6.50                                                                | 2.00                      |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |            |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Loader                    | 2.50                                                                | 6.00                      |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |            |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| Total operating hours to date: 73.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                           | Total 9.00                                                          | 8.00                      |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |            |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br>No accidents reported today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           |                                                                     |                           |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |            |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           |                                                                     |                           |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |            |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           |                                                                     |                           |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |            |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           | DATE                                                                | SUPERINTENDENT'S INITIALS |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |            |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           |                                                                     | DATE                      |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |            |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                            |                                          |             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                            | REPORT NUMBER<br>833                     | Page 1 of 2 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                            | DATE<br>10 Aug 2012 - Friday             |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                            | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | WEATHER<br>Weather Caused No Delay<br>Temperature Min 70 °F, Max 95 °F; 0.01 IN Precipitation; 15 MPH Wind |                                          |             |
| <b>QC NARRATIVES</b><br><br><b>Contractor/Subcontractor &amp; Area of Responsibility for work:</b><br>Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.<br>Moretrench - Conducted site prep. and mobilization. Continued construction of working platform.<br><br><b>Activities in Progress (List by Activity Number)</b><br>DFW: Mobilization / Site Preparation in progress<br>DFW: Construction of Working Platform<br><br><b>Quality Control Inspections and Activities (List by Feature of Work)</b><br>Sovereign conducted inspection of imported backfill borrow upon deliveries. No deficiencies noted. QC samples of the imported backfill borrow will collected by sent to office laboratory for required geo-technical analytical.<br><br><b>Did anything develop that may lead to a Change Order/Claim?</b><br>No developments that may lead to a Change Oder during the day.<br><br><b>Were there any Delays in Work Progress today?</b><br>No delays in work progress encountered during the day.<br><br><b>General Comments:</b><br>Work Completed During the Day:<br><br>Sovereign: Provided oversight and on-site QC of Moretrench. Conducted photographic documentation of delivery imported backfill borrow and final lay-down area set-up. Photograph IDs: 081012-01 and 081012-02.<br><br>Moretrench: Began mixing slurry and filling tanks. Tested water line under pressuure and walked line. Fixed one (1) leak in line from hydrant. General site clean-up.<br><br>Materials Brought on Site:<br><br>325 cubic yards of imported backfill borrow. Soucre Graves, Templeton, MA<br><br>Equipment Brought on Site:<br><br>Cataplliar 374D Excavator<br>Cataplliar 329E Excavator<br><br><b>Verbal Instructions given by Government:</b><br>No verbal instruction given by the government during the day.<br><br><b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviuewed prior to start of work activties. |                                                                                                            |                                          |             |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                            |                                          |             |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                            |                                          |             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                            |                                          |             |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           | REPORT NUMBER<br>833                     |                           | Page 2 of 2 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |       |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|------------------------------------------|---------------------------|-------------|---------------|----------------------|---------------------|-----------------|-----------|--------------------------|------|------|-----------|----------|------|------|-----------|------------------|-------|------|-----------|----------------------|-----|------|-----------|---------------------------|-----|-----|-----------|-------------|-----|-----|-------|--|-----|------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           | DATE<br>10 Aug 2012 - Friday             |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |       |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                           | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |       |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |       |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |       |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |       |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table border="1"> <thead> <tr> <th>Employer</th> <th>Labor Classification</th> <th>Number of Employees</th> <th>Hours Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td>2.0</td> <td>16.0</td> </tr> <tr> <td>Sovereign</td> <td>SAFETY ENGINEER - ON SITE</td> <td>1.0</td> <td>2.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td colspan="2">Total</td> <td>7.0</td> <td>50.0</td> </tr> </tbody> </table> Total hours worked to date: 522.8 |                           |                                          |                           |             | Employer      | Labor Classification | Number of Employees | Hours Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 1.0  | 8.0  | Moretrech | LABORERS | 1.0  | 8.0  | Moretrech | PROJECT ENGINEER | 1.0   | 8.0  | Moretrech | SUPER - CONSTRUCTION | 2.0 | 16.0 | Sovereign | SAFETY ENGINEER - ON SITE | 1.0 | 2.0 | Sovereign | SUPER - JOB | 1.0 | 8.0 | Total |  | 7.0 | 50.0 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Labor Classification      | Number of Employees                      | Hours Worked              |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |       |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | HEAVY-EQUIPMENT OPERATOR  | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |       |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | LABORERS                  | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |       |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | PROJECT ENGINEER          | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |       |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | SUPER - CONSTRUCTION      | 2.0                                      | 16.0                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |       |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | SAFETY ENGINEER - ON SITE | 1.0                                      | 2.0                       |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |       |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | SUPER - JOB               | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |       |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           | 7.0                                      | 50.0                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |       |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| <b>EQUIPMENT HOURS</b><br><b>The following equipment hours were Reported today:</b> <table border="1"> <thead> <tr> <th>Serial Number</th> <th>Description</th> <th>Idle Hours</th> <th>Operating Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td>8.50</td> <td>0.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td>2.50</td> <td>6.00</td> </tr> <tr> <td colspan="2">Total</td> <td>11.00</td> <td>6.00</td> </tr> </tbody> </table> Total operating hours to date: 79.00                                                                                                                                                                                                                                                                                                                                                                       |                           |                                          |                           |             | Serial Number | Description          | Idle Hours          | Operating Hours | N/A       | Bull Dozer               | 8.50 | 0.00 | N/A       | Loader   | 2.50 | 6.00 | Total     |                  | 11.00 | 6.00 |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Description               | Idle Hours                               | Operating Hours           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |       |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Bull Dozer                | 8.50                                     | 0.00                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |       |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Loader                    | 2.50                                     | 6.00                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |       |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           | 11.00                                    | 6.00                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |       |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |       |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |       |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |       |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           | DATE                                     | SUPERINTENDENT'S INITIALS |             | DATE          |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |       |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |

|                                                                                     |                                                                                                      |                                          |             |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |                                                                                                      | REPORT NUMBER<br>836                     | Page 1 of 2 |
|                                                                                     |                                                                                                      | DATE<br>13 Aug 2012 - Monday             |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |                                                                                                      | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             | WEATHER<br>Weather Caused No Delay<br>Temperature Min 68 °F, Max 90 °F; No Precipitation; 5 MPH Wind |                                          |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.  
 Moretrench - Conducted site prep. and mobilization. Continued construction of working platform.

**Activities in Progress (List by Activity Number)**  
 DFW: Mobilization / Site Preparation in progress  
 DFW: Construction of Working Platform

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Moretrench conducted on-site preliminary QC testing on slurry being mixed in tanks to ensure correct mixture amounts to ensure all specifications will be met at the commencement of trench excavation activities.

**Did anything develop that may lead to a Change Order/Claim?**  
 No developments that may lead to a Change Order during the day.

**Were there any Delays in Work Progress today?**  
 No delays in work progress encountered during the day.

**General Comments:**  
 Work Completed During the Day:

Sovereign: Provided oversight and on-site QC of Moretrench. Conducted photographic documentation of delivery imported backfill borrow and final lay-down area set-up. Photograph IDs: 081012-01 and 081012-02.

Moretrench: Continued mixing slurry and filling tanks. Milton Cat/Astro Crane began assembly of excavator long stick. Miscellaneous fittings installed on tanks and water line. Continued construction of first 300 feet of working platform. Began stockpiling fill material using excavator to mine existing on-site soil stockpile for use in construction of the working platform.

General site clean-up.

Materials Brought on Site:

No additional material brought on-site during the day.

Equipment Brought on Site:

Long stick and boom  
 Terex Crane (T340 -1XL)  
 Northstar Scissor Lift  
 Extra hoses and fittings.

**Verbal Instructions given by Government:**  
 No verbal instruction given by the government during the day.

**Safety Inspection / Safety Meetings:**  
 Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's reviewed prior to start of work activities.

Lift Worksheet completed prior to commencement of crane pick of long stick and boom.  
 All lifting materials and apparatus were inspected prior to use.

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           | REPORT NUMBER<br>836 <span style="float: right;">Page 2 of 2</span> |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------------------------------------------|--------------------|---------------|----------------------|------------------------|--------------------|-----------|--------------------------|------|------|-----------|----------|------|------|--------------------------------------|------------------|-------------|------|-----------|----------------------|-----|------|-----------|---------------------------|-----|-----|-----------|-------------|-----|-----|-----------------------------------|--|-----------|------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           | DATE<br>13 Aug 2012 - Monday                                        |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| ACTIVITY START/FINISH<br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| QC REQUIREMENTS<br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| QA/QC DEFICIENCY (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| CONTRACTORS ON SITE (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| <b>LABOR HOURS</b><br>The following labor hours were Reported today: <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">3.0</td> <td style="text-align: right;">24.0</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">2.0</td> <td style="text-align: right;">16.0</td> </tr> <tr> <td>Sovereign</td> <td>SAFETY ENGINEER - ON SITE</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">6.5</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">9.0</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total hours worked to date: 594.3</td> <td style="text-align: right; border-top: 1px solid black;">Total 9.0</td> <td style="text-align: right; border-top: 1px solid black;">71.5</td> </tr> </tbody> </table> |                           |                                                                     |                    | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 3.0  | 24.0 | Moretrech | LABORERS | 1.0  | 8.0  | Moretrech                            | PROJECT ENGINEER | 1.0         | 8.0  | Moretrech | SUPER - CONSTRUCTION | 2.0 | 16.0 | Sovereign | SAFETY ENGINEER - ON SITE | 1.0 | 6.5 | Sovereign | SUPER - JOB | 1.0 | 9.0 | Total hours worked to date: 594.3 |  | Total 9.0 | 71.5 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Labor Classification      | Number of<br>Employees                                              | Hours<br>Worked    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | HEAVY-EQUIPMENT OPERATOR  | 3.0                                                                 | 24.0               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | LABORERS                  | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | PROJECT ENGINEER          | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | SUPER - CONSTRUCTION      | 2.0                                                                 | 16.0               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | SAFETY ENGINEER - ON SITE | 1.0                                                                 | 6.5                |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | SUPER - JOB               | 1.0                                                                 | 9.0                |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| Total hours worked to date: 594.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                           | Total 9.0                                                           | 71.5               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| <b>EQUIPMENT HOURS</b><br>The following equipment hours were Reported today: <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle<br/>Hours</th> <th style="text-align: right;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">1.50</td> <td style="text-align: right;">7.00</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total operating hours to date: 86.00</td> <td style="text-align: right; border-top: 1px solid black;">Total 10.00</td> <td style="text-align: right; border-top: 1px solid black;">7.00</td> </tr> </tbody> </table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                           |                                                                     |                    | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A       | Bull Dozer               | 8.50 | 0.00 | N/A       | Loader   | 1.50 | 7.00 | Total operating hours to date: 86.00 |                  | Total 10.00 | 7.00 |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Description               | Idle<br>Hours                                                       | Operating<br>Hours |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Bull Dozer                | 8.50                                                                | 0.00               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Loader                    | 1.50                                                                | 7.00               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| Total operating hours to date: 86.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           | Total 10.00                                                         | 7.00               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| CONTRACTOR CERTIFICATION <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | DATE                      | SUPERINTENDENT'S INITIALS                                           | DATE               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |



|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                      |                                          |             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                      | REPORT NUMBER<br>837                     | Page 1 of 2 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                      | DATE<br>14 Aug 2012 - Tuesday            |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                      | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | WEATHER<br>Weather Caused No Delay<br>Temperature Min 68 °F, Max 90 °F; No Precipitation; 5 MPH Wind |                                          |             |
| <b>QC NARRATIVES</b><br><br><b>Contractor/Subcontractor &amp; Area of Responsibility for work:</b><br>Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.<br>Moretrench - Continued construction of working platform.<br><br><b>Activities in Progress (List by Activity Number)</b><br>DFW: mobilization/site preparation<br>DFW: Construction of Working Platform<br><br><b>Quality Control Inspections and Activities (List by Feature of Work)</b><br>Moretrench continued on-site preliminary QC testing on slurry being mixed in tanks to ensure correct mixture amounts to ensure all specifications will be met at the commencement of trench excavation activities.<br><br><b>Did anything develop that may lead to a Change Order/Claim?</b><br>No developments that may lead to a Change Order during the day.<br><br><b>Were there any Delays in Work Progress today?</b><br>No delays in work progress encountered during the day.<br><br><b>General Comments:</b><br>Work Completed During the Day:<br><br>Sovereign: Provided oversight and on-site QC of Moretrench. Conducted photographic documentation of delivery imported backfill borrow and final lay-down area set-up. Photograph IDs: 081412-01 and 0811412-10.<br><br>Moretrench: Worked on miscellaneous fittings on Adler tanks and water pipes. Continued mixing slurry and filling tanks. Milton Cat completed assembly of excavator long stick. Completed construction of first 300 feet of working platform. Continued stockpiling fill material using excavator to mine existing on-site soil stockpile for use in construction of the working platform.<br><br>General site clean-up.<br><br>Materials Brought on Site:<br><br>No additional material brought on-site during the day.<br><br>Equipment Brought on Site:<br><br>No additional equipment was brought onsite during the day.<br><br><b>Verbal Instructions given by Government:</b><br>No verbal instruction given by the government during the day.<br><br><b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's reviewed prior to start of work activities. |                                                                                                      |                                          |             |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                      |                                          |             |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                      |                                          |             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                      |                                          |             |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           | REPORT NUMBER<br>837 <div style="text-align: right;">Page 2 of 2</div> |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |       |       |                                       |                           |     |       |           |             |     |     |  |  |       |      |                                   |  |  |      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|------------------------------------------------------------------------|--------------------|---------------|----------------------|------------------------|--------------------|-----------|--------------------------|------|------|-----------|---------------------------|------|------|-----------|------------------|------|------|-----------|----------------------|------|------|-----------|------------------|-------|-------|---------------------------------------|---------------------------|-----|-------|-----------|-------------|-----|-----|--|--|-------|------|-----------------------------------|--|--|------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           | DATE<br>14 Aug 2012 - Tuesday                                          |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |       |       |                                       |                           |     |       |           |             |     |     |  |  |       |      |                                   |  |  |      |
| <b>QC REQUIREMENTS</b><br>No QC requirements were completed today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           |                                                                        |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |       |       |                                       |                           |     |       |           |             |     |     |  |  |       |      |                                   |  |  |      |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br>No QC Deficiency items were issued today<br>No Deficiency items were corrected today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           |                                                                        |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |       |       |                                       |                           |     |       |           |             |     |     |  |  |       |      |                                   |  |  |      |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br>No contractors had their first or last day on site today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           |                                                                        |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |       |       |                                       |                           |     |       |           |             |     |     |  |  |       |      |                                   |  |  |      |
| <b>LABOR HOURS</b><br>The following labor hours were Reported today: <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">3.0</td> <td style="text-align: right;">24.5</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">2.0</td> <td style="text-align: right;">16.0</td> </tr> <tr> <td>Sovereign</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">2.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Sovereign</td> <td>SAFETY ENGINEER - ON SITE</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td colspan="2"></td> <td style="text-align: right; border-top: 1px solid black;">Total</td> <td style="text-align: right; border-top: 1px solid black;">11.0</td> </tr> <tr> <td colspan="2">Total hours worked to date: 674.8</td> <td></td> <td style="text-align: right;">80.5</td> </tr> </tbody> </table> |                           |                                                                        |                    | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 3.0  | 24.5 | Moretrech | LABORERS                  | 1.0  | 8.0  | Moretrech | PROJECT ENGINEER | 1.0  | 8.0  | Moretrech | SUPER - CONSTRUCTION | 2.0  | 16.0 | Sovereign | PROJECT ENGINEER | 2.0   | 8.0   | Sovereign                             | SAFETY ENGINEER - ON SITE | 1.0 | 8.0   | Sovereign | SUPER - JOB | 1.0 | 8.0 |  |  | Total | 11.0 | Total hours worked to date: 674.8 |  |  | 80.5 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Labor Classification      | Number of<br>Employees                                                 | Hours<br>Worked    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |       |       |                                       |                           |     |       |           |             |     |     |  |  |       |      |                                   |  |  |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | HEAVY-EQUIPMENT OPERATOR  | 3.0                                                                    | 24.5               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |       |       |                                       |                           |     |       |           |             |     |     |  |  |       |      |                                   |  |  |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | LABORERS                  | 1.0                                                                    | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |       |       |                                       |                           |     |       |           |             |     |     |  |  |       |      |                                   |  |  |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | PROJECT ENGINEER          | 1.0                                                                    | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |       |       |                                       |                           |     |       |           |             |     |     |  |  |       |      |                                   |  |  |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | SUPER - CONSTRUCTION      | 2.0                                                                    | 16.0               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |       |       |                                       |                           |     |       |           |             |     |     |  |  |       |      |                                   |  |  |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | PROJECT ENGINEER          | 2.0                                                                    | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |       |       |                                       |                           |     |       |           |             |     |     |  |  |       |      |                                   |  |  |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | SAFETY ENGINEER - ON SITE | 1.0                                                                    | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |       |       |                                       |                           |     |       |           |             |     |     |  |  |       |      |                                   |  |  |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | SUPER - JOB               | 1.0                                                                    | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |       |       |                                       |                           |     |       |           |             |     |     |  |  |       |      |                                   |  |  |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           | Total                                                                  | 11.0               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |       |       |                                       |                           |     |       |           |             |     |     |  |  |       |      |                                   |  |  |      |
| Total hours worked to date: 674.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           |                                                                        | 80.5               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |       |       |                                       |                           |     |       |           |             |     |     |  |  |       |      |                                   |  |  |      |
| <b>EQUIPMENT HOURS</b><br>The following equipment hours were Reported today: <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle<br/>Hours</th> <th style="text-align: right;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">2.00</td> <td style="text-align: right;">6.00</td> </tr> <tr> <td>N/A</td> <td>Exacavtor with Long Stick</td> <td style="text-align: right;">6.50</td> <td style="text-align: right;">0.50</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">1.50</td> <td style="text-align: right;">7.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator #1</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">7.00</td> </tr> <tr> <td colspan="2"></td> <td style="text-align: right; border-top: 1px solid black;">Total</td> <td style="text-align: right; border-top: 1px solid black;">11.00</td> </tr> <tr> <td colspan="2">Total operating hours to date: 106.50</td> <td></td> <td style="text-align: right;">20.50</td> </tr> </tbody> </table>                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           |                                                                        |                    | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A       | Bull Dozer               | 2.00 | 6.00 | N/A       | Exacavtor with Long Stick | 6.50 | 0.50 | N/A       | Loader           | 1.50 | 7.00 | N/A       | Mixing Excavator #1  | 1.00 | 7.00 |           |                  | Total | 11.00 | Total operating hours to date: 106.50 |                           |     | 20.50 |           |             |     |     |  |  |       |      |                                   |  |  |      |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Description               | Idle<br>Hours                                                          | Operating<br>Hours |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |       |       |                                       |                           |     |       |           |             |     |     |  |  |       |      |                                   |  |  |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Bull Dozer                | 2.00                                                                   | 6.00               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |       |       |                                       |                           |     |       |           |             |     |     |  |  |       |      |                                   |  |  |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Exacavtor with Long Stick | 6.50                                                                   | 0.50               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |       |       |                                       |                           |     |       |           |             |     |     |  |  |       |      |                                   |  |  |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Loader                    | 1.50                                                                   | 7.00               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |       |       |                                       |                           |     |       |           |             |     |     |  |  |       |      |                                   |  |  |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Mixing Excavator #1       | 1.00                                                                   | 7.00               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |       |       |                                       |                           |     |       |           |             |     |     |  |  |       |      |                                   |  |  |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           | Total                                                                  | 11.00              |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |       |       |                                       |                           |     |       |           |             |     |     |  |  |       |      |                                   |  |  |      |
| Total operating hours to date: 106.50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           |                                                                        | 20.50              |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |       |       |                                       |                           |     |       |           |             |     |     |  |  |       |      |                                   |  |  |      |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br>No accidents reported today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                           |                                                                        |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |       |       |                                       |                           |     |       |           |             |     |     |  |  |       |      |                                   |  |  |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           |                                                                        |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |       |       |                                       |                           |     |       |           |             |     |     |  |  |       |      |                                   |  |  |      |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           |                                                                        |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |       |       |                                       |                           |     |       |           |             |     |     |  |  |       |      |                                   |  |  |      |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | DATE                      | SUPERINTENDENT'S INITIALS                                              | DATE               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |       |       |                                       |                           |     |       |           |             |     |     |  |  |       |      |                                   |  |  |      |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                 |                | REPORT NUMBER<br>838 <span style="float: right;">Page 1 of 2</span>                                              |           |            |         |            |               |            |    |            |  |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------------------------------------------------------------------------------------------------------------|-----------|------------|---------|------------|---------------|------------|----|------------|--|--|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                    |                | DATE<br>15 Aug 2012 - Wednesday                                                                                  |           |            |         |            |               |            |    |            |  |  |
| CONTRACTOR<br>Sovereign Consulting Inc.                                                                                                                                                                                                                                                                             |                | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                                         |           |            |         |            |               |            |    |            |  |  |
|                                                                                                                                                                                                                                                                                                                     |                | WEATHER<br>Weather Caused Non-Critical Delay<br>Temperature Min 68 °F, Max 85 °F; 2 IN Precipitation; 7 MPH Wind |           |            |         |            |               |            |    |            |  |  |
| <b>QC NARRATIVES</b>                                                                                                                                                                                                                                                                                                |                |                                                                                                                  |           |            |         |            |               |            |    |            |  |  |
| <b>Contractor/Subcontractor &amp; Area of Responsibility for work:</b><br>Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.<br>Moretrench - Continued construction of working platform.                                                                                          |                |                                                                                                                  |           |            |         |            |               |            |    |            |  |  |
| <b>Activities in Progress (List by Activity Number)</b><br>DFW: Soil/ Bentonite Wall Construction                                                                                                                                                                                                                   |                |                                                                                                                  |           |            |         |            |               |            |    |            |  |  |
| <b>Quality Control Inspections and Activities (List by Feature of Work)</b><br>Moretrench continued on-site QC testing on slurry being mixed in tanks to ensure correct mix. All specifications will be met at the commencement of trench excavation activities.                                                    |                |                                                                                                                  |           |            |         |            |               |            |    |            |  |  |
| Testins Included:                                                                                                                                                                                                                                                                                                   |                |                                                                                                                  |           |            |         |            |               |            |    |            |  |  |
| <table border="0"> <tr> <td>Test</td> <td>Time Conducted</td> </tr> <tr> <td>Viscosity</td> <td>944 &amp; 1447</td> </tr> <tr> <td>Density</td> <td>945 &amp; 1453</td> </tr> <tr> <td>Filtrate Loss</td> <td>949 &amp; 1500</td> </tr> <tr> <td>PH</td> <td>953 &amp; 1530</td> </tr> </table>                     | Test           | Time Conducted                                                                                                   | Viscosity | 944 & 1447 | Density | 945 & 1453 | Filtrate Loss | 949 & 1500 | PH | 953 & 1530 |  |  |
| Test                                                                                                                                                                                                                                                                                                                | Time Conducted |                                                                                                                  |           |            |         |            |               |            |    |            |  |  |
| Viscosity                                                                                                                                                                                                                                                                                                           | 944 & 1447     |                                                                                                                  |           |            |         |            |               |            |    |            |  |  |
| Density                                                                                                                                                                                                                                                                                                             | 945 & 1453     |                                                                                                                  |           |            |         |            |               |            |    |            |  |  |
| Filtrate Loss                                                                                                                                                                                                                                                                                                       | 949 & 1500     |                                                                                                                  |           |            |         |            |               |            |    |            |  |  |
| PH                                                                                                                                                                                                                                                                                                                  | 953 & 1530     |                                                                                                                  |           |            |         |            |               |            |    |            |  |  |
| All test results were with in acceptable ranges laid out in site Quality Controll Plans                                                                                                                                                                                                                             |                |                                                                                                                  |           |            |         |            |               |            |    |            |  |  |
| <b>Did anything develop that may lead to a Change Order/Claim?</b><br>No developments that may lead to a Change Oder during the day.                                                                                                                                                                                |                |                                                                                                                  |           |            |         |            |               |            |    |            |  |  |
| <b>Were there any Delays in Work Progress today?</b><br>No delays in work progress encountered during the day.                                                                                                                                                                                                      |                |                                                                                                                  |           |            |         |            |               |            |    |            |  |  |
| <b>General Comments:</b><br>Work Completed During the Day:                                                                                                                                                                                                                                                          |                |                                                                                                                  |           |            |         |            |               |            |    |            |  |  |
| Sovereign: Provided oversight and on-site QC of Moretrench. Conducted photographic documentation of delivery imported backfill borrow and final lay-down area set-up. Photograph IDs: 081512-01 and 0811512-06.                                                                                                     |                |                                                                                                                  |           |            |         |            |               |            |    |            |  |  |
| Moretrench: Worked on miscellaneous fittings on Adler tanks and water pipes. Continued mixing slurry and filling tanks. Milton Cat completed assembly of excavator long stick. Set Crane Mats on work platform. Positioned CAT 374 to prepare for Trench Excavation. Completed Lead in Trench Down to 16 ft @ 0+00. |                |                                                                                                                  |           |            |         |            |               |            |    |            |  |  |
| General site clean-up.                                                                                                                                                                                                                                                                                              |                |                                                                                                                  |           |            |         |            |               |            |    |            |  |  |
| Materials Brought on Site:                                                                                                                                                                                                                                                                                          |                |                                                                                                                  |           |            |         |            |               |            |    |            |  |  |
| No additional material brough on-site during the day.                                                                                                                                                                                                                                                               |                |                                                                                                                  |           |            |         |            |               |            |    |            |  |  |
| Equipment Brought on Site:                                                                                                                                                                                                                                                                                          |                |                                                                                                                  |           |            |         |            |               |            |    |            |  |  |
| No additional equipment was brought onsite during the day.                                                                                                                                                                                                                                                          |                |                                                                                                                  |           |            |         |            |               |            |    |            |  |  |
| <b>Verbal Instructions given by Government:</b><br>No verbal instruction given by the government during the day.                                                                                                                                                                                                    |                |                                                                                                                  |           |            |         |            |               |            |    |            |  |  |
| <b>Safety Inspection / Safety Meetings:</b>                                                                                                                                                                                                                                                                         |                |                                                                                                                  |           |            |         |            |               |            |    |            |  |  |

Precipitation amount should have been noted as 0.46 inches for the work shift.

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           | REPORT NUMBER<br>838 <span style="float: right;">Page 2 of 2</span> |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------------------------------------------|--------------------|---------------|----------------------|------------------------|--------------------|-----------|--------------------------|------|------|-----------|---------------------------|------|------|-----------|------------------|------|------|-----------|----------------------|------|------|---------------------------------------|------------------|-------------|------|-----------|---------------------------|-----|-----|-----------|-------------|-----|-----|-----------------------------------|--|------------|------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           | DATE<br>15 Aug 2012 - Wednesday                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |
| CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |
| Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's reviewed prior to start of work activities.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">4.0</td> <td style="text-align: right;">32.0</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">2.0</td> <td style="text-align: right;">16.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Sovereign</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">2.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Sovereign</td> <td>SAFETY ENGINEER - ON SITE</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total hours worked to date: 762.8</td> <td style="text-align: right; border-top: 1px solid black;">Total 12.0</td> <td style="text-align: right; border-top: 1px solid black;">88.0</td> </tr> </tbody> </table> |                           |                                                                     |                    | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 4.0  | 32.0 | Moretrech | LABORERS                  | 2.0  | 16.0 | Moretrech | PROJECT ENGINEER | 1.0  | 8.0  | Moretrech | SUPER - CONSTRUCTION | 1.0  | 8.0  | Sovereign                             | PROJECT ENGINEER | 2.0         | 8.0  | Sovereign | SAFETY ENGINEER - ON SITE | 1.0 | 8.0 | Sovereign | SUPER - JOB | 1.0 | 8.0 | Total hours worked to date: 762.8 |  | Total 12.0 | 88.0 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Labor Classification      | Number of<br>Employees                                              | Hours<br>Worked    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | HEAVY-EQUIPMENT OPERATOR  | 4.0                                                                 | 32.0               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | LABORERS                  | 2.0                                                                 | 16.0               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | PROJECT ENGINEER          | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | SUPER - CONSTRUCTION      | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | PROJECT ENGINEER          | 2.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | SAFETY ENGINEER - ON SITE | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | SUPER - JOB               | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |
| Total hours worked to date: 762.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                           | Total 12.0                                                          | 88.0               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |
| <b>EQUIPMENT HOURS</b><br><b>The following equipment hours were Reported today:</b> <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle<br/>Hours</th> <th style="text-align: right;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">7.00</td> <td style="text-align: right;">1.00</td> </tr> <tr> <td>N/A</td> <td>Exacavtor with Long Stick</td> <td style="text-align: right;">6.50</td> <td style="text-align: right;">1.50</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">4.00</td> <td style="text-align: right;">4.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator #1</td> <td style="text-align: right;">5.00</td> <td style="text-align: right;">3.00</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total operating hours to date: 116.00</td> <td style="text-align: right; border-top: 1px solid black;">Total 22.50</td> <td style="text-align: right; border-top: 1px solid black;">9.50</td> </tr> </tbody> </table>                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |                                                                     |                    | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A       | Bull Dozer               | 7.00 | 1.00 | N/A       | Exacavtor with Long Stick | 6.50 | 1.50 | N/A       | Loader           | 4.00 | 4.00 | N/A       | Mixing Excavator #1  | 5.00 | 3.00 | Total operating hours to date: 116.00 |                  | Total 22.50 | 9.50 |           |                           |     |     |           |             |     |     |                                   |  |            |      |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Description               | Idle<br>Hours                                                       | Operating<br>Hours |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Bull Dozer                | 7.00                                                                | 1.00               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Exacavtor with Long Stick | 6.50                                                                | 1.50               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Loader                    | 4.00                                                                | 4.00               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Mixing Excavator #1       | 5.00                                                                | 3.00               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |
| Total operating hours to date: 116.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                           | Total 22.50                                                         | 9.50               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |
| <b>CONTRACTOR CERTIFICATION</b> <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | DATE                      | SUPERINTENDENT'S INITIALS                                           | DATE               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |

|                                                                                     |  |                                                                                                          |             |
|-------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |  | REPORT NUMBER<br>839                                                                                     | Page 1 of 3 |
|                                                                                     |  | DATE<br>16 Aug 2012 - Thursday                                                                           |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |  | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                                 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             |  | WEATHER<br>Weather Caused No Delay<br>Temperature Min 70 °F, Max 90 °F; 0.1 IN Precipitation; 5 MPH Wind |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.  
 Moretrench - Continued construction of working platform.

**Activities in Progress (List by Activity Number)**  
 DFW: Soil/ Bentonite Wall Construction

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Moretrench continued on-site QC testing on slurry being mixed in tanks to ensure correct mixture amounts to ensure all specifications will be met at the commencement of trench excavation activities. AMEC oversaw all QC testing to confirm it was completed properly and all results were within the acceptable range.

Testins Included:

|                          |                   |
|--------------------------|-------------------|
| Test                     | Time Conducted    |
| Viscosity-Initial        | 819 & 1238        |
| Viscosity- In trench     | 930, 1405 & 1649  |
| Density- Initial         | 824 & 1241        |
| Density- In trench       | 933, 1407 & 1653  |
| Filtrate Loss- Initial   | 905 & 1312        |
| Filtrate Loss- In trench | 1008, 1438 & 1720 |
| PH- Initial              | 826 & 1243        |

All test results were within acceptable ranges laid out in site Quality Control Plans

**Did anything develop that may lead to a Change Order/Claim?**  
 No developments that may lead to a Change Order during the day.

**Were there any Delays in Work Progress today?**  
 No delays in work progress encountered during the day.

**General Comments:**  
 Work Completed During the Day:

Sovereign: Provided oversight and on-site QC of Moretrench. Photographed progress as trench advanced. Photograph IDs: 081612-01 and 0811612-16.

Moretrench: Continued mixing slurry and filling tanks. Began mixing backfill with mixing excavator. Completed Trench from 0+00 to 0+30.

End of day depths:

|      |                                     |
|------|-------------------------------------|
| 0-25 | 0 ft                                |
| 0-20 | 6.7 ft                              |
| 0-10 | 23.0 ft                             |
| 0+00 | 24.0 ft                             |
| 0+10 | 22.0 ft                             |
| 0+20 | 24.0 ft                             |
| 0+30 | 25.0 ft                             |
| 0+40 | 23.3 ft * Rock not encountered yet* |

Materials Brought on Site:

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           | REPORT NUMBER<br>839                     |                 | Page 2 of 3 |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                           |       |       |                                   |  |       |       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|------------------------------------------|-----------------|-------------|---------------|----------------------|---------------------|-----------------|-----------|--------------------------|-------|------|-----------|---------------------------|------|------|-----------|------------------|------|------|-----------|----------------------|------|------|-----------|------------------|------|------|---------------------------------------|---------------------------|-------|-------|-----------------------------------|--|-------|-------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           | DATE<br>16 Aug 2012 - Thursday           |                 |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                           |       |       |                                   |  |       |       |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                           | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |                 |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                           |       |       |                                   |  |       |       |
| <p>No additional material brough on-site during the day.</p> <p>Equipment Brought on Site:</p> <p>Milton CAT Delievered 950K Loader.</p> <p><b>Verbal Instructions given by Government:</b></p> <p>No verbal instruction given by the government during the day.</p> <p><b>Safety Inspection / Safety Meetings:</b></p> <p>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviewed prior to start of work activties.</p>                                                                                                                                                                                                                                                                                                                                                                                                          |                           |                                          |                 |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                           |       |       |                                   |  |       |       |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           |                                          |                 |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                           |       |       |                                   |  |       |       |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |                                          |                 |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                           |       |       |                                   |  |       |       |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           |                                          |                 |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                           |       |       |                                   |  |       |       |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                           |                                          |                 |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                           |       |       |                                   |  |       |       |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           |                                          |                 |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                           |       |       |                                   |  |       |       |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table border="1"> <thead> <tr> <th>Employer</th> <th>Labor Classification</th> <th>Number of Employees</th> <th>Hours Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td>4.0</td> <td>40.5</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td>3.0</td> <td>26.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td>1.0</td> <td>10.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td>1.0</td> <td>10.0</td> </tr> <tr> <td>Sovereign</td> <td>PROJECT ENGINEER</td> <td>2.0</td> <td>20.0</td> </tr> <tr> <td>Sovereign</td> <td>SAFETY ENGINEER - ON SITE</td> <td>1.0</td> <td>10.0</td> </tr> <tr> <td colspan="2">Total hours worked to date: 879.3</td> <td>Total</td> <td>116.5</td> </tr> </tbody> </table> |                           |                                          |                 |             | Employer      | Labor Classification | Number of Employees | Hours Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 4.0   | 40.5 | Moretrech | LABORERS                  | 3.0  | 26.0 | Moretrech | PROJECT ENGINEER | 1.0  | 10.0 | Moretrech | SUPER - CONSTRUCTION | 1.0  | 10.0 | Sovereign | PROJECT ENGINEER | 2.0  | 20.0 | Sovereign                             | SAFETY ENGINEER - ON SITE | 1.0   | 10.0  | Total hours worked to date: 879.3 |  | Total | 116.5 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Labor Classification      | Number of Employees                      | Hours Worked    |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                           |       |       |                                   |  |       |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | HEAVY-EQUIPMENT OPERATOR  | 4.0                                      | 40.5            |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                           |       |       |                                   |  |       |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | LABORERS                  | 3.0                                      | 26.0            |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                           |       |       |                                   |  |       |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | PROJECT ENGINEER          | 1.0                                      | 10.0            |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                           |       |       |                                   |  |       |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | SUPER - CONSTRUCTION      | 1.0                                      | 10.0            |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                           |       |       |                                   |  |       |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | PROJECT ENGINEER          | 2.0                                      | 20.0            |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                           |       |       |                                   |  |       |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | SAFETY ENGINEER - ON SITE | 1.0                                      | 10.0            |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                           |       |       |                                   |  |       |       |
| Total hours worked to date: 879.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           | Total                                    | 116.5           |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                           |       |       |                                   |  |       |       |
| <b>EQUIPMENT HOURS</b><br><b>The following equipment hours were Reported today:</b> <table border="1"> <thead> <tr> <th>Serial Number</th> <th>Description</th> <th>Idle Hours</th> <th>Operating Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td>10.00</td> <td>0.00</td> </tr> <tr> <td>N/A</td> <td>Exacavtor with Long Stick</td> <td>1.50</td> <td>8.50</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td>2.00</td> <td>8.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator #1</td> <td>1.00</td> <td>9.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td>0.00</td> <td>1.00</td> </tr> <tr> <td colspan="2">Total operating hours to date: 142.50</td> <td>Total</td> <td>26.50</td> </tr> </tbody> </table>                                                                                                                              |                           |                                          |                 |             | Serial Number | Description          | Idle Hours          | Operating Hours | N/A       | Bull Dozer               | 10.00 | 0.00 | N/A       | Exacavtor with Long Stick | 1.50 | 8.50 | N/A       | Loader           | 2.00 | 8.00 | N/A       | Mixing Excavator #1  | 1.00 | 9.00 | N/A       | Mixing Loader    | 0.00 | 1.00 | Total operating hours to date: 142.50 |                           | Total | 26.50 |                                   |  |       |       |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Description               | Idle Hours                               | Operating Hours |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                           |       |       |                                   |  |       |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Bull Dozer                | 10.00                                    | 0.00            |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                           |       |       |                                   |  |       |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Exacavtor with Long Stick | 1.50                                     | 8.50            |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                           |       |       |                                   |  |       |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Loader                    | 2.00                                     | 8.00            |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                           |       |       |                                   |  |       |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Mixing Excavator #1       | 1.00                                     | 9.00            |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                           |       |       |                                   |  |       |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Mixing Loader             | 0.00                                     | 1.00            |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                           |       |       |                                   |  |       |       |
| Total operating hours to date: 142.50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           | Total                                    | 26.50           |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                           |       |       |                                   |  |       |       |

|                                                                                                                                                                                                                                                                                                                       |  |                                          |                           |             |      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------|---------------------------|-------------|------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                   |  | REPORT NUMBER<br>839                     |                           | Page 3 of 3 |      |
|                                                                                                                                                                                                                                                                                                                       |  | DATE<br>16 Aug 2012 - Thursday           |                           |             |      |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                      |  | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |                           |             |      |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                  |  |                                          |                           |             |      |
|                                                                                                                                                                                                                                                                                                                       |  |                                          |                           |             |      |
| CONTRACTOR CERTIFICATION <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b> |  |                                          |                           |             |      |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                         |  | DATE                                     | SUPERINTENDENT'S INITIALS |             | DATE |

|                                                                                     |                                                                                                      |                                          |             |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |                                                                                                      | REPORT NUMBER<br>840                     | Page 1 of 3 |
|                                                                                     |                                                                                                      | DATE<br>17 Aug 2012 - Friday             |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |                                                                                                      | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             | WEATHER<br>Weather Caused No Delay<br>Temperature Min 70 °F, Max 90 °F; No Precipitation; 5 MPH Wind |                                          |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.  
 AMEC - Provided on-site engineering services and oversight of all field QC testing.  
 Moretrench - Excavation and Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil/ Bentonite Wall Construction  
 Construction of Working Platform

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Moretrench completed on-site QC testing of slurry being mixed in tanks prior to placement in trench along with on-site QC testing of slurry within the trench. AMEC provided oversight of all field QC testing to confirm testing was completed properly as per project specification and all results were within the acceptable ranges.

On-site QC Testing Performed:

Bentonite Slurry:

| Test                     | Time Conducted    |
|--------------------------|-------------------|
| Viscosity-Initial        | 0834 & 1239       |
| Viscosity- In trench     | 0934, 1405 & 1650 |
| Density- Initial         | 0837 & 1241       |
| Density- In trench       | 0937, 1406 & 1653 |
| Filtrate Loss- Initial   | 0909 & 1312       |
| Filtrate Loss- In trench | 1008, 1441 & 1721 |
| pH- Initial              | 0826 & 1243       |

All test results were with in acceptable as specified in project specifications and project Quality Controll Plans.

Soil-Bentonite Backfill:

| Test    | Time Conducted |
|---------|----------------|
| Slump   | 0812           |
| Density | 0845 &1334     |

All test results were with in acceptable as specified in project specifications and project Quality Controll Plans.

Sample collected of Soil-Bentonite Backfill for off-site analysis of Permeability, Gradation, and Materials Fines Content.

Backfill Slope soundings conducted at stations at the start and end of the work shift.

**Did anything develop that may lead to a Change Order/Claim ?**  
 No developments that may lead to a Change Oder during the day.

**Were there any Delays in Work Progress today?**  
 No delays in work progress encountered during the day.

**General Comments:**



| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                          | REPORT NUMBER<br>840                     | Page 2 of 3  |          |                      |                     |              |           |                          |      |       |           |          |     |      |           |                  |     |     |           |                      |     |     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|------------------------------------------|--------------|----------|----------------------|---------------------|--------------|-----------|--------------------------|------|-------|-----------|----------|-----|------|-----------|------------------|-----|-----|-----------|----------------------|-----|-----|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                          | DATE<br>17 Aug 2012 - Friday             |              |          |                      |                     |              |           |                          |      |       |           |          |     |      |           |                  |     |     |           |                      |     |     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                          | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |              |          |                      |                     |              |           |                          |      |       |           |          |     |      |           |                  |     |     |           |                      |     |     |
| <p>Work Completed During the Day:</p> <p>Sovereign: Provided project oversight and on-site QC of Moretrench and AMEC. Photographed progress as trench advanced.</p> <p>AMEC: Provided oversight of on-site QC testing performed by Moretrench and trench exvavation activities including the determination of final trench depths and if refusal criteria had been met at each 10 foot station.</p> <p>Moretrench: Continued mixing slurry and filling tanks. Continued backfill mixing with excavator. Completed excavation of trench from 0+30 to 0+70. Backfilled trench with 1 batch of backfill (102 cy). Performed all required on-site QC testing.</p> <p>Final Trench Depths at 10 foot stations during the day:</p> <table border="1"> <thead> <tr> <th>Station</th> <th>Final Trench Depth</th> </tr> </thead> <tbody> <tr> <td>0+40</td> <td>24.9'</td> </tr> <tr> <td>0+50</td> <td>32.4'</td> </tr> <tr> <td>0+60</td> <td>34.3'</td> </tr> </tbody> </table> <p>Materials Brought on Site:</p> <p>No additional material brought on-site during the day.</p> <p>Equipment Brought on Site:</p> <p>No additional equipment brought on-site during the day.</p> <p><b>Verbal Instructions given by Government:</b></p> <p>No verbal instruction given by the government during the day.</p> <p><b>Safety Inspection / Safety Meetings:</b></p> <p>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviewed prior to start of work activties.</p> |                          |                                          |              | Station  | Final Trench Depth   | 0+40                | 24.9'        | 0+50      | 32.4'                    | 0+60 | 34.3' |           |          |     |      |           |                  |     |     |           |                      |     |     |
| Station                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Final Trench Depth       |                                          |              |          |                      |                     |              |           |                          |      |       |           |          |     |      |           |                  |     |     |           |                      |     |     |
| 0+40                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 24.9'                    |                                          |              |          |                      |                     |              |           |                          |      |       |           |          |     |      |           |                  |     |     |           |                      |     |     |
| 0+50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 32.4'                    |                                          |              |          |                      |                     |              |           |                          |      |       |           |          |     |      |           |                  |     |     |           |                      |     |     |
| 0+60                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 34.3'                    |                                          |              |          |                      |                     |              |           |                          |      |       |           |          |     |      |           |                  |     |     |           |                      |     |     |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                          |                                          |              |          |                      |                     |              |           |                          |      |       |           |          |     |      |           |                  |     |     |           |                      |     |     |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                          |                                          |              |          |                      |                     |              |           |                          |      |       |           |          |     |      |           |                  |     |     |           |                      |     |     |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          |                                          |              |          |                      |                     |              |           |                          |      |       |           |          |     |      |           |                  |     |     |           |                      |     |     |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                          |                                          |              |          |                      |                     |              |           |                          |      |       |           |          |     |      |           |                  |     |     |           |                      |     |     |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                          |                                          |              |          |                      |                     |              |           |                          |      |       |           |          |     |      |           |                  |     |     |           |                      |     |     |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table border="1"> <thead> <tr> <th>Employer</th> <th>Labor Classification</th> <th>Number of Employees</th> <th>Hours Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td>4.0</td> <td>32.5</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td>3.0</td> <td>24.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td>1.0</td> <td>8.0</td> </tr> </tbody> </table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                          |                                          |              | Employer | Labor Classification | Number of Employees | Hours Worked | Moretrech | HEAVY-EQUIPMENT OPERATOR | 4.0  | 32.5  | Moretrech | LABORERS | 3.0 | 24.0 | Moretrech | PROJECT ENGINEER | 1.0 | 8.0 | Moretrech | SUPER - CONSTRUCTION | 1.0 | 8.0 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Labor Classification     | Number of Employees                      | Hours Worked |          |                      |                     |              |           |                          |      |       |           |          |     |      |           |                  |     |     |           |                      |     |     |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | HEAVY-EQUIPMENT OPERATOR | 4.0                                      | 32.5         |          |                      |                     |              |           |                          |      |       |           |          |     |      |           |                  |     |     |           |                      |     |     |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | LABORERS                 | 3.0                                      | 24.0         |          |                      |                     |              |           |                          |      |       |           |          |     |      |           |                  |     |     |           |                      |     |     |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | PROJECT ENGINEER         | 1.0                                      | 8.0          |          |                      |                     |              |           |                          |      |       |           |          |     |      |           |                  |     |     |           |                      |     |     |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | SUPER - CONSTRUCTION     | 1.0                                      | 8.0          |          |                      |                     |              |           |                          |      |       |           |          |     |      |           |                  |     |     |           |                      |     |     |

|                                                                                                                                                                                                                                                                                                                       |                                 |                                          |                           |             |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|------------------------------------------|---------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                   |                                 | REPORT NUMBER<br>840                     |                           | Page 3 of 3 |
|                                                                                                                                                                                                                                                                                                                       |                                 | DATE<br>17 Aug 2012 - Friday             |                           |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                      |                                 | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |                           |             |
| Sovereign<br>Sovereign<br>Total hours worked to date: 975.8                                                                                                                                                                                                                                                           | PROJECT ENGINEER<br>SUPER - JOB | 2.0<br>1.0<br>Total 12.0                 | 16.0<br>8.0<br>96.5       |             |
| <b>EQUIPMENT HOURS</b><br>The following equipment hours were Reported today:                                                                                                                                                                                                                                          |                                 |                                          |                           |             |
| Serial Number                                                                                                                                                                                                                                                                                                         | Description                     | Idle Hours                               | Operating Hours           |             |
| N/A                                                                                                                                                                                                                                                                                                                   | Bull Dozer                      | 8.00                                     | 0.00                      |             |
| N/A                                                                                                                                                                                                                                                                                                                   | Exacavtor with Long Stick       | 0.50                                     | 8.00                      |             |
| N/A                                                                                                                                                                                                                                                                                                                   | Loader                          | 4.00                                     | 4.00                      |             |
| N/A                                                                                                                                                                                                                                                                                                                   | Mixing Excavator                | 0.50                                     | 8.00                      |             |
| N/A                                                                                                                                                                                                                                                                                                                   | Mixing Loader                   | 0.50                                     | 8.00                      |             |
| Total operating hours to date: 170.50                                                                                                                                                                                                                                                                                 |                                 | Total 13.50                              | 28.00                     |             |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                  |                                 |                                          |                           |             |
|                                                                                                                                                                                                                                                                                                                       |                                 |                                          |                           |             |
| CONTRACTOR CERTIFICATION <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b> |                                 |                                          |                           |             |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                         |                                 | DATE                                     | SUPERINTENDENT'S INITIALS | DATE        |

|                                                                                     |  |                                                                                                      |             |
|-------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |  | REPORT NUMBER<br>843                                                                                 | Page 1 of 3 |
|                                                                                     |  | DATE<br>20 Aug 2012 - Monday                                                                         |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |  | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                             |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             |  | WEATHER<br>Weather Caused No Delay<br>Temperature Min 60 °F, Max 82 °F; No Precipitation; 5 MPH Wind |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench and AMEC. Provided on-site QC and documentation.  
 AMEC - Provided on-site engineering services and oversight of all field QC testing.  
 Moretrench - Excavation and Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
 Contruction of Working Platform

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Moretrench completed on-site QC testing of slurry being mixed in tanks prior to placement in trench along with on-site QC testing of slurry within the trench. Moretrech and AMEC also conducted on-site QC testing of backfill batches. Samples of backfill batches also collected for off-site QC testing. AMEC provided oversight of all Moretrench field QC testing to confirm testing was completed properly as per project specification and all results were within the acceptable ranges.

On-site QC Testing Performed:

Bentonite Slurry:

|                          |                   |
|--------------------------|-------------------|
| Test                     | Time Conducted    |
| Viscosity-Initial        | 1250 & 1454       |
| Viscosity- In trench     | 0849, 1015 & 1530 |
| Density- Initial         | 1253 & 1456       |
| Density- In trench       | 0851, 1018 & 1534 |
| Filtrate Loss- Initial   | 1324 & 1528       |
| Filtrate Loss- In trench | 0921, 1048 & 1605 |
| pH- Initial              | 1256 & 1500       |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Soil-Bentonite Backfill:

|         |                |
|---------|----------------|
| Test    | Time Conducted |
| Slump   | 0832 & 1145    |
| Density | 0845 & 1245    |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Samples collected of Soil-Bentonite Backfill for off-site analysis of Permeability, Gradation, and Materials Fines Content.

Backfill Slope soundings conducted at stations at the start and end of the work shift.

**Did anything develop that may lead to a Change Order/Claim ?**  
 No developments that may lead to a Change Oder during the day.

**Were there any Delays in Work Progress today?**  
 No delays in work progress encountered during the day.

**General Comments:**

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                    | REPORT NUMBER<br>843                     | Page 2 of 3 |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|------------------------------------------|-------------|---------|--------------------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                    | DATE<br>20 Aug 2012 - Monday             |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                    | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| <p>Work Completed During the Day:</p> <p>Sovereign: Provided project oversight and on-site QC of Moretrench and AMEC. Photographed progress of excavation and backfill mizing as trench advanced. Photo IDs: 082012-01 through 082012-12.</p> <p>AMEC: Provided oversight of on-site QC testing performed by Moretrench and trench exvcavation activities. Also made final determination of trench depths and if refusal criteria had been met at each 10 foot station.</p> <p>Moretrench: Continued mixing slurry and filling tanks. Continued backfill mixing with excavator. Completed excavation of trench from 0+70 to 1+70. Backfilled trench with 2 1/4 batches of backfill (220 cy). Backfill complete at station 0+30 and present at approximately station 1+20 at end of the shift. Performed all required on-site QC testing.</p> <p>Final Trench Depths at 10 foot stations during the day:</p> <table border="1"> <thead> <tr> <th>Station</th> <th>Final Trench Depth</th> </tr> </thead> <tbody> <tr><td>0+70</td><td>30.2'</td></tr> <tr><td>0+80</td><td>23.8'</td></tr> <tr><td>0+90</td><td>22.7'</td></tr> <tr><td>1+00</td><td>20.5'</td></tr> <tr><td>1+10</td><td>21.8'</td></tr> <tr><td>1+20</td><td>22.8'</td></tr> <tr><td>1+30</td><td>23.1'</td></tr> <tr><td>1+40</td><td>24.3'</td></tr> <tr><td>1+50</td><td>25.4'</td></tr> <tr><td>1+60</td><td>25.2'</td></tr> <tr><td>1+70</td><td>27.0'</td></tr> </tbody> </table> <p>Materials Brought on Site:</p> <p>No additional material brought on-site during the day.</p> <p>Equipment Brought on Site:</p> <p>No additional equipment brought on-site during the day.</p> <p><b>Verbal Instructions given by Government:</b></p> <p>No verbal instruction given by the government during the day.</p> <p><b>Safety Inspection / Safety Meetings:</b></p> <p>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviuewed prior to start of work activties.</p> |                    |                                          |             | Station | Final Trench Depth | 0+70 | 30.2' | 0+80 | 23.8' | 0+90 | 22.7' | 1+00 | 20.5' | 1+10 | 21.8' | 1+20 | 22.8' | 1+30 | 23.1' | 1+40 | 24.3' | 1+50 | 25.4' | 1+60 | 25.2' | 1+70 | 27.0' |
| Station                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Final Trench Depth |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| 0+70                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 30.2'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| 0+80                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 23.8'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| 0+90                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 22.7'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| 1+00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 20.5'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| 1+10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 21.8'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| 1+20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 22.8'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| 1+30                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 23.1'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| 1+40                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 24.3'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| 1+50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 25.4'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| 1+60                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 25.2'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| 1+70                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 27.0'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| Empty section for additional notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |

|                                                                                                                                                                                                                                                                                                                       |                           |                                          |                           |                    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|------------------------------------------|---------------------------|--------------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                   |                           | REPORT NUMBER<br>843                     |                           | Page 3 of 3        |
|                                                                                                                                                                                                                                                                                                                       |                           | DATE<br>20 Aug 2012 - Monday             |                           |                    |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                      |                           | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |                           |                    |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b>                                                                                                                                                                                                                                           |                           |                                          |                           |                    |
| Employer                                                                                                                                                                                                                                                                                                              | Labor Classification      |                                          | Number of<br>Employees    | Hours<br>Worked    |
| Moretrech                                                                                                                                                                                                                                                                                                             | HEAVY-EQUIPMENT OPERATOR  |                                          | 4.0                       | 39.5               |
| Moretrech                                                                                                                                                                                                                                                                                                             | LABORERS                  |                                          | 3.0                       | 29.0               |
| Moretrech                                                                                                                                                                                                                                                                                                             | PROJECT ENGINEER          |                                          | 1.0                       | 10.0               |
| Moretrech                                                                                                                                                                                                                                                                                                             | SUPER - CONSTRUCTION      |                                          | 1.0                       | 10.0               |
| Sovereign                                                                                                                                                                                                                                                                                                             | PROJECT ENGINEER          |                                          | 1.0                       | 10.0               |
| Sovereign                                                                                                                                                                                                                                                                                                             | SUPER - JOB               |                                          | 1.0                       | 10.0               |
| Total hours worked to date: 1,084.3                                                                                                                                                                                                                                                                                   |                           | Total                                    | 11.0                      | 108.5              |
| <b>EQUIPMENT HOURS</b><br><b>The following equipment hours were Reported today:</b>                                                                                                                                                                                                                                   |                           |                                          |                           |                    |
| Serial Number                                                                                                                                                                                                                                                                                                         | Description               |                                          | Idle<br>Hours             | Operating<br>Hours |
| N/A                                                                                                                                                                                                                                                                                                                   | Bull Dozer                |                                          | 10.50                     | 0.00               |
| N/A                                                                                                                                                                                                                                                                                                                   | Exacavtor with Long Stick |                                          | 0.50                      | 10.00              |
| N/A                                                                                                                                                                                                                                                                                                                   | Loader                    |                                          | 4.00                      | 4.00               |
| N/A                                                                                                                                                                                                                                                                                                                   | Mixing Excavator          |                                          | 0.50                      | 10.00              |
| N/A                                                                                                                                                                                                                                                                                                                   | Mixing Loader             |                                          | 0.50                      | 10.00              |
| Total operating hours to date: 204.50                                                                                                                                                                                                                                                                                 |                           | Total                                    | 16.00                     | 34.00              |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                  |                           |                                          |                           |                    |
|                                                                                                                                                                                                                                                                                                                       |                           |                                          |                           |                    |
| CONTRACTOR CERTIFICATION <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b> |                           |                                          |                           |                    |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                         |                           | DATE                                     | SUPERINTENDENT'S INITIALS | DATE               |

|                                                                                     |                                                                                                      |                                          |             |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |                                                                                                      | REPORT NUMBER<br>844                     | Page 1 of 3 |
|                                                                                     |                                                                                                      | DATE<br>21 Aug 2012 - Tuesday            |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |                                                                                                      | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             | WEATHER<br>Weather Caused No Delay<br>Temperature Min 65 °F, Max 83 °F; No Precipitation; 5 MPH Wind |                                          |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench and AMEC. Provided on-site QC and documentation.  
 AMEC - Provided on-site engineering services and oversight of all field QC testing.  
 Moretrench - Excavation and Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
 Contruction of Working Platform

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Initial Inspection for DFW: Soil-Bentonite Wall Construction and Preparatory Meeting for DFW: On-site Stockpiling of Excess Soil Materials held during the day.

All imported borrow backfill material brought on site during the day inspected upon arrival. No physical defecencies noted.

Moretrench completed on-site QC testing of slurry being mixed in tanks prior to placement in trench along with on-site QC testing of slurry within the trench. Moretrech and AMEC also conducted on-site QC testing of backfill batches. Samples of backfill batches also collected for off-site QC testing. AMEC provided oversight of all Moretrench field QC testing to confirm testing was completed properly as per project specification and all results were within acceptable ranges.

On-site QC Testing Performed:

Bentonite Slurry:

| Test                     | Time Conducted    |
|--------------------------|-------------------|
| Viscosity-Initial        | 0845 & 1454       |
| Viscosity- In trench     | 0849, 1106 & 1540 |
| Density- Initial         | 0853 & 1456       |
| Density- In trench       | 0853, 1108 & 1544 |
| Filtrate Loss- Initial   | 0924 & 1528       |
| Filtrate Loss- In trench | 0931, 1140 & 1607 |
| pH- Initial              | 0900 & 1500       |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Soil-Bentonite Backfill:

| Test    | Time Conducted     |
|---------|--------------------|
| Slump   | 0834, 1145, & 1439 |
| Density | 0853, 1200, & 1451 |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Samples collected of Soil-Bentonite Backfill for off-site analysis of Permeability, Gradation, and Materials Fines Content.

Backfill Slope soundings conducted at stations at the start and end of the work shift.  
 Current trench profile emailed under seperate cover to USACE representatives.

**Did anything develop that may lead to a Change Order/Claim ?**  
 No developments that may lead to a Change Oder during the day.

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                    | REPORT NUMBER<br>844                     | Page 2 of 3 |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|------------------------------------------|-------------|---------|--------------------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                    | DATE<br>21 Aug 2012 - Tuesday            |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| <p><b>Were there any Delays in Work Progress today?</b><br/>         No delays in work progress encountered during the day.</p> <p><b>General Comments:</b><br/>         Work Completed During the Day:</p> <p>Sovereign: Provided project oversight and on-site QC of Moretrench and AMEC. Photographed progress of excavation and backfill mizing as trench advanced. Photo IDs: 082112-01 through 082112-14.</p> <p>AMEC: Provided oversight of on-site QC testing performed by Moretrench and trench exvcavation activities. Also made final determination of trench depths and if refusal criteria had been met at each 10 foot station.</p> <p>Moretrench: Continued mixing slurry and filling tanks. Continued backfill mixing with excavator. Completed excavation of trench from 1+70 to 2+40. Backfilled trench with 2 3/4 batches of backfill (248 cy). Backfill complete at station 1+00. Backfill quantities summarized on Trench Profile submitted under seperate cover the USACE representatives. Performed all required on-site QC testing.</p> <p>Final Trench Depths at 10 foot stations during the day:</p> <table border="1"> <thead> <tr> <th>Station</th> <th>Final Trench Depth</th> </tr> </thead> <tbody> <tr> <td>1+80</td> <td>27.3'</td> </tr> <tr> <td>1+90</td> <td>26.7'</td> </tr> <tr> <td>2+00</td> <td>28.7'</td> </tr> <tr> <td>2+10</td> <td>29.1'</td> </tr> <tr> <td>2+20</td> <td>31.0'</td> </tr> <tr> <td>2+30</td> <td>30.2'</td> </tr> <tr> <td>2+40</td> <td>30.1'</td> </tr> </tbody> </table> <p>Materials Brought on Site:</p> <p>200 cys of Imported Clay Borrow for use in Backfill Mix brought on site during the day (W.J. Graves)</p> <p>Equipment Brought on Site:</p> <p>No additional equipment brought on-site during the day.</p> <p>Additional Note:</p> <p>Landfill liner encountered at station 2+55. Liner did not appear to be continuous, only a small patch.</p> <p><b>Verbal Instructions given by Government:</b><br/>         Randy LeCuyer (USACE Construction Representative) asked that the secondary containment around the fuel cell and generator be tightened up in the two front corners. This was completed by Moretrench during the day.</p> <p><b>Safety Inspection / Safety Meetings:</b><br/>         Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviuewed prior to start of work activties.</p> |                    |                                          |             | Station | Final Trench Depth | 1+80 | 27.3' | 1+90 | 26.7' | 2+00 | 28.7' | 2+10 | 29.1' | 2+20 | 31.0' | 2+30 | 30.2' | 2+40 | 30.1' |
| Station                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Final Trench Depth |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| 1+80                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 27.3'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| 1+90                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 26.7'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| 2+00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 28.7'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| 2+10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 29.1'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| 2+20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 31.0'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| 2+30                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 30.2'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| 2+40                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 30.1'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| <p><b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)</p> <p><b>A preparatory inspection was held today for the following feature:</b><br/>         Stockpiling of Soil Materials</p> <p><b>An initial inspection was held today for the following feature:</b><br/>         Soil-Bentonite Wall Construct.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| <p><b>ACTIVITY START/FINISH</b></p> <p><b>No activities were started or finished today</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           | REPORT NUMBER<br>844 <span style="float: right;">Page 3 of 3</span> |                                   |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------------------------------------------|-----------------------------------|---------------|----------------------|------------------------|--------------------|-----------|--------------------------|-------|------|-----------|---------------------------|------|-------|-----------|------------------|------|------|-----------|----------------------|------|------|-----------|------------------|------|------|-----------|-------------|-------|-------|---------------------------------------|--|-------|-------|-------------------------------------|--|--|-------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                           | DATE<br>21 Aug 2012 - Tuesday                                       |                                   |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           |                                                                     |                                   |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| <b>QC REQUIREMENTS</b><br>No QC requirements were completed today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           |                                                                     |                                   |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br>No QC Deficiency items were issued today<br>No Deficiency items were corrected today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           |                                                                     |                                   |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br>No contractors had their first or last day on site today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           |                                                                     |                                   |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| <b>LABOR HOURS</b><br>The following labor hours were Reported today: <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">4.0</td> <td style="text-align: right;">40.5</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">3.0</td> <td style="text-align: right;">30.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td>Sovereign</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td colspan="2"></td> <td style="text-align: right; border-top: 1px solid black;">Total</td> <td style="text-align: right; border-top: 1px solid black;">11.0</td> </tr> <tr> <td colspan="2">Total hours worked to date: 1,194.8</td> <td></td> <td style="text-align: right; border-top: 1px solid black;">110.5</td> </tr> </tbody> </table> |                           |                                                                     |                                   | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 4.0   | 40.5 | Moretrech | LABORERS                  | 3.0  | 30.0  | Moretrech | PROJECT ENGINEER | 1.0  | 10.0 | Moretrech | SUPER - CONSTRUCTION | 1.0  | 10.0 | Sovereign | PROJECT ENGINEER | 1.0  | 10.0 | Sovereign | SUPER - JOB | 1.0   | 10.0  |                                       |  | Total | 11.0  | Total hours worked to date: 1,194.8 |  |  | 110.5 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Labor Classification      | Number of<br>Employees                                              | Hours<br>Worked                   |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | HEAVY-EQUIPMENT OPERATOR  | 4.0                                                                 | 40.5                              |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | LABORERS                  | 3.0                                                                 | 30.0                              |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | PROJECT ENGINEER          | 1.0                                                                 | 10.0                              |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | SUPER - CONSTRUCTION      | 1.0                                                                 | 10.0                              |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | PROJECT ENGINEER          | 1.0                                                                 | 10.0                              |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | SUPER - JOB               | 1.0                                                                 | 10.0                              |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           | Total                                                               | 11.0                              |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| Total hours worked to date: 1,194.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |                                                                     | 110.5                             |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| <b>EQUIPMENT HOURS</b><br>The following equipment hours were Reported today: <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle<br/>Hours</th> <th style="text-align: right;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">10.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Exacavtor with Long Stick</td> <td style="text-align: right;">0.50</td> <td style="text-align: right;">10.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">6.00</td> <td style="text-align: right;">4.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">9.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">9.00</td> </tr> <tr> <td colspan="2"></td> <td style="text-align: right; border-top: 1px solid black;">Total</td> <td style="text-align: right; border-top: 1px solid black;">19.00</td> </tr> <tr> <td colspan="2">Total operating hours to date: 236.50</td> <td></td> <td style="text-align: right; border-top: 1px solid black;">32.00</td> </tr> </tbody> </table>                                                                                                                                                                         |                           |                                                                     |                                   | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A       | Bull Dozer               | 10.50 | 0.00 | N/A       | Exacavtor with Long Stick | 0.50 | 10.00 | N/A       | Loader           | 6.00 | 4.00 | N/A       | Mixing Excavator     | 1.00 | 9.00 | N/A       | Mixing Loader    | 1.00 | 9.00 |           |             | Total | 19.00 | Total operating hours to date: 236.50 |  |       | 32.00 |                                     |  |  |       |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Description               | Idle<br>Hours                                                       | Operating<br>Hours                |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Bull Dozer                | 10.50                                                               | 0.00                              |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Exacavtor with Long Stick | 0.50                                                                | 10.00                             |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Loader                    | 6.00                                                                | 4.00                              |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Mixing Excavator          | 1.00                                                                | 9.00                              |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Mixing Loader             | 1.00                                                                | 9.00                              |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           | Total                                                               | 19.00                             |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| Total operating hours to date: 236.50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           |                                                                     | 32.00                             |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br>No accidents reported today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           |                                                                     |                                   |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           |                                                                     |                                   |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           |                                                                     |                                   |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           | DATE                                                                | SUPERINTENDENT'S INITIALS<br>DATE |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |



|                                                                                     |  |                                                                                                      |             |
|-------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |  | REPORT NUMBER<br>845                                                                                 | Page 1 of 3 |
|                                                                                     |  | DATE<br>22 Aug 2012 - Wednesday                                                                      |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |  | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                             |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             |  | WEATHER<br>Weather Caused No Delay<br>Temperature Min 70 °F, Max 85 °F; No Precipitation; 5 MPH Wind |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench and AMEC. Provided on-site QC and documentation.  
 AMEC - Provided on-site engineering services and oversight of all field QC testing.  
 Moretrench - Excavation and Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
 Contruction of Working Platform

**Quality Control Inspections and Activities (List by Feature of Work)**  
 All imported borrow backfill material brought on site during the day inspected upon arrival. No physical defecencies noted.

Moretrench completed on-site QC testing of slurry being mixed in tanks prior to placement in trench along with on-site QC testing of slurry within the trench. Moretrech and AMEC also conducted on-site QC testing of backfill batches. Samples of backfill batches also collected for off-site QC testing. AMEC provided oversight of all Moretrench field QC testing to confirm testing was completed properly as per project specification and all results were within acceptable ranges.

On-site QC Testing Performed:

Bentonite Slurry:

|                          |                   |
|--------------------------|-------------------|
| Test                     | Time Conducted    |
| Viscosity-Initial        | 1100 & 1513       |
| Viscosity- In trench     | 0920, 1330 & 1434 |
| Density- Initial         | 1105 & 1516       |
| Density- In trench       | 0922, 1333 & 1436 |
| Filtrate Loss- Initial   | 1135 & 1546       |
| Filtrate Loss- In trench | 0954, 1404 & 1508 |
| pH- Initial              | 1108 & 1518       |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Soil-Bentonite Backfill:

|         |                    |
|---------|--------------------|
| Test    | Time Conducted     |
| Slump   | 0833, 1115, & 1530 |
| Density | 0840, 1150, & 1539 |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Samples collected of Soil-Bentonite Backfill for off-site analysis of Permeability, Gradation, and Materials Fines Content. AMEC started running Materials Fines Content in the field on backfill mix.

Backfill Slope soundings conducted at stations at the start and end of the work shift.  
 Current trench profile emailed under seperate cover to USACE representatives.

**Did anything develop that may lead to a Change Order/Claim ?**  
 No developments that may lead to a Change Oder during the day.

**Were there any Delays in Work Progress today?**

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                    | REPORT NUMBER<br>845                     | Page 2 of 3 |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|------------------------------------------|-------------|---------|--------------------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    | DATE<br>22 Aug 2012 - Wednesday          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                    | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| <p>No delays in work progress encountered during the day.</p> <p><b>General Comments:</b><br/>         Work Completed During the Day:</p> <p>Sovereign: Provided project oversight and on-site QC of Moretrench and AMEC. Photographed progress of excavation and backfill mizing as trench advanced. Photo IDs: 082212-01 through 08212-07.</p> <p>AMEC: Provided oversight of on-site QC testing performed by Moretrench and trench exvcavation activities. Also made final determination of trench depths and if refusal criteria had been met at each 10 foot station. Started performing in field Materials Fine Content testing on backfill mix.</p> <p>Moretrench: Continued mixing slurry and filling tanks. Continued backfill mixing with excavator. Completed excavation of trench from 2+40 to 3+10. Backfilled trench with 2 1/2 batches of backfill (220 cy). Backfill complete at station 1+70. Backfill quantities summarized on Trench Profile submitted under seperate cover the USACE representatives. Performed all required on-site QC testing.</p> <p>Final Trench Depths at 10 foot stations during the day:</p> <table border="1"> <thead> <tr> <th>Station</th> <th>Final Trench Depth</th> </tr> </thead> <tbody> <tr> <td>2+50</td> <td>29.0'</td> </tr> <tr> <td>2+60</td> <td>30.0'</td> </tr> <tr> <td>2+70</td> <td>32.8'</td> </tr> <tr> <td>2+80</td> <td>36.7'</td> </tr> <tr> <td>2+90</td> <td>37.2'</td> </tr> <tr> <td>3+00</td> <td>36.4*</td> </tr> <tr> <td>3+10</td> <td>36.3*</td> </tr> </tbody> </table> <p>* Depth reameasured and recorded at start of shift on 8-23-12.</p> <p>Materials Brought on Site:</p> <p>175 cys of Imported Clay Borrow for use in Backfill Mix brought on site during the day (W.J. Graves)</p> <p>Equipment Brought on Site:</p> <p>No additional equipment brought on-site during the day.</p> <p><b>Verbal Instructions given by Government:</b><br/>         No verbal instruction given by the government during the day.</p> <p><b>Safety Inspection / Safety Meetings:</b><br/>         Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviuewed prior to start of work activties.</p> <p><b>Safety: (Inspections made, Deficiencies noted):</b><br/>         Kane Turmellel (USACE Safety Specialist) on site during the morning to perform inspection.</p> <p>Mr. Turmellel recommended that the laborer mixing slurry wear hearing protection as he is working the vicinity of the main mixing pump ans noise levels in his work hear may be close to 85 db.</p> |                    |                                          |             | Station | Final Trench Depth | 2+50 | 29.0' | 2+60 | 30.0' | 2+70 | 32.8' | 2+80 | 36.7' | 2+90 | 37.2' | 3+00 | 36.4* | 3+10 | 36.3* |
| Station                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Final Trench Depth |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| 2+50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 29.0'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| 2+60                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 30.0'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| 2+70                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 32.8'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| 2+80                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 36.7'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| 2+90                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 37.2'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| 3+00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 36.4*              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| 3+10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 36.3*              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| Empty space for additional notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           | REPORT NUMBER<br>845 <span style="float: right;">Page 3 of 3</span> |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                           |       |       |           |             |     |      |  |  |       |       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------------------------------------------|--------------------|---------------|----------------------|------------------------|--------------------|-----------|--------------------------|-------|------|-----------|---------------------------|------|-------|-----------|------------------|------|------|-----------|----------------------|------|------|-----------|------------------|------|------|-----------|---------------------------|-------|-------|-----------|-------------|-----|------|--|--|-------|-------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           | DATE<br>22 Aug 2012 - Wednesday                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                           |       |       |           |             |     |      |  |  |       |       |
| CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                           |       |       |           |             |     |      |  |  |       |       |
| <b>QC REQUIREMENTS</b><br>No QC requirements were completed today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                           |       |       |           |             |     |      |  |  |       |       |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br>No QC Deficiency items were issued today<br>No Deficiency items were corrected today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                           |       |       |           |             |     |      |  |  |       |       |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br>No contractors had their first or last day on site today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                           |       |       |           |             |     |      |  |  |       |       |
| <b>LABOR HOURS</b><br>The following labor hours were Reported today: <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">4.0</td> <td style="text-align: right;">40.5</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">3.0</td> <td style="text-align: right;">30.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td>Sovereign</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td>Sovereign</td> <td>SAFETY ENGINEER - ON SITE</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td colspan="2"></td> <td style="text-align: right; border-top: 1px solid black;">Total</td> <td style="text-align: right; border-top: 1px solid black;">120.5</td> </tr> </tbody> </table> Total hours worked to date: 1,315.3 |                           |                                                                     |                    | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 4.0   | 40.5 | Moretrech | LABORERS                  | 3.0  | 30.0  | Moretrech | PROJECT ENGINEER | 1.0  | 10.0 | Moretrech | SUPER - CONSTRUCTION | 1.0  | 10.0 | Sovereign | PROJECT ENGINEER | 1.0  | 10.0 | Sovereign | SAFETY ENGINEER - ON SITE | 1.0   | 10.0  | Sovereign | SUPER - JOB | 1.0 | 10.0 |  |  | Total | 120.5 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Labor Classification      | Number of<br>Employees                                              | Hours<br>Worked    |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                           |       |       |           |             |     |      |  |  |       |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | HEAVY-EQUIPMENT OPERATOR  | 4.0                                                                 | 40.5               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                           |       |       |           |             |     |      |  |  |       |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | LABORERS                  | 3.0                                                                 | 30.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                           |       |       |           |             |     |      |  |  |       |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | PROJECT ENGINEER          | 1.0                                                                 | 10.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                           |       |       |           |             |     |      |  |  |       |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | SUPER - CONSTRUCTION      | 1.0                                                                 | 10.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                           |       |       |           |             |     |      |  |  |       |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | PROJECT ENGINEER          | 1.0                                                                 | 10.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                           |       |       |           |             |     |      |  |  |       |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | SAFETY ENGINEER - ON SITE | 1.0                                                                 | 10.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                           |       |       |           |             |     |      |  |  |       |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | SUPER - JOB               | 1.0                                                                 | 10.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                           |       |       |           |             |     |      |  |  |       |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           | Total                                                               | 120.5              |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                           |       |       |           |             |     |      |  |  |       |       |
| <b>EQUIPMENT HOURS</b><br>The following equipment hours were Reported today: <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle<br/>Hours</th> <th style="text-align: right;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">10.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Exacavtor with Long Stick</td> <td style="text-align: right;">0.50</td> <td style="text-align: right;">10.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">6.00</td> <td style="text-align: right;">4.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">9.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">9.50</td> </tr> <tr> <td colspan="2"></td> <td style="text-align: right; border-top: 1px solid black;">Total</td> <td style="text-align: right; border-top: 1px solid black;">33.50</td> </tr> </tbody> </table> Total operating hours to date: 270.00                                                                                                                                                                                                                                                                                                                            |                           |                                                                     |                    | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A       | Bull Dozer               | 10.50 | 0.00 | N/A       | Exacavtor with Long Stick | 0.50 | 10.00 | N/A       | Loader           | 6.00 | 4.50 | N/A       | Mixing Excavator     | 1.00 | 9.50 | N/A       | Mixing Loader    | 1.00 | 9.50 |           |                           | Total | 33.50 |           |             |     |      |  |  |       |       |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Description               | Idle<br>Hours                                                       | Operating<br>Hours |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                           |       |       |           |             |     |      |  |  |       |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Bull Dozer                | 10.50                                                               | 0.00               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                           |       |       |           |             |     |      |  |  |       |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Exacavtor with Long Stick | 0.50                                                                | 10.00              |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                           |       |       |           |             |     |      |  |  |       |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Loader                    | 6.00                                                                | 4.50               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                           |       |       |           |             |     |      |  |  |       |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Mixing Excavator          | 1.00                                                                | 9.50               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                           |       |       |           |             |     |      |  |  |       |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Mixing Loader             | 1.00                                                                | 9.50               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                           |       |       |           |             |     |      |  |  |       |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           | Total                                                               | 33.50              |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                           |       |       |           |             |     |      |  |  |       |       |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br>No accidents reported today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                           |       |       |           |             |     |      |  |  |       |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                           |       |       |           |             |     |      |  |  |       |       |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                           |       |       |           |             |     |      |  |  |       |       |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | DATE                      | SUPERINTENDENT'S INITIALS                                           | DATE               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                           |       |       |           |             |     |      |  |  |       |       |

|                                                                                     |  |                                                                                                      |             |
|-------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |  | REPORT NUMBER<br>846                                                                                 | Page 1 of 3 |
|                                                                                     |  | DATE<br>23 Aug 2012 - Thursday                                                                       |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |  | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                             |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             |  | WEATHER<br>Weather Caused No Delay<br>Temperature Min 70 °F, Max 86 °F; No Precipitation; 5 MPH Wind |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench and AMEC. Provided on-site QC and documentation.  
 AMEC - Provided on-site engineering services and oversight of all field QC testing.  
 Moretrench - Excavation and Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
 Contruction of Working Platform

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Moretrench completed on-site QC testing of slurry being mixed in tanks prior to placement in trench along with on-site QC testing of slurry within the trench. Moretrech and AMEC also conducted on-site QC testing of backfill batches. Samples of backfill batches also collected for off-site QC testing. AMEC provided oversight of all Moretrench field QC testing to confirm testing was completed properly as per project specification and all results were within acceptable ranges.

On-site QC Testing Performed:

Bentonite Slurry:

|                          |                   |
|--------------------------|-------------------|
| Test                     | Time Conducted    |
| Viscosity-Initial        | 1004 & 1502       |
| Viscosity- In trench     | 0850, 1330 & 1434 |
| Density- Initial         | 1007 & 1504       |
| Density- In trench       | 0927, 1404 & 1436 |
| Filtrate Loss- Initial   | 1039 & 1546       |
| Filtrate Loss- In trench | 0927, 1404 & 1508 |
| pH- Initial              | 1011 & 1508       |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Soil-Bentonite Backfill:

|         |                    |
|---------|--------------------|
| Test    | Time Conducted     |
| Slump   | 0902, 1245, & 1545 |
| Density | 0912, 1300, & 1600 |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Samples collected of Soil-Bentonite Backfill for off-site analysis of Permeability, Gradation, and Materials Fines Content. AMEC completed field Materials Fines Content testing on backfill mix for batches 1 through 11. Results of Fine Content % ranged from 37% in Batch 4 to 52% in Batch 5. Average for all 11 batches was 45%.

Backfill Slope soundings conducted at stations at the start and end of the work shift.  
 Current trench profile emailed under seperate cover to USACE representatives.

**Did anything develop that may lead to a Change Order/Claim ?**  
 No developments that may lead to a Change Oder during the day.

**Were there any Delays in Work Progress today?**

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                    | REPORT NUMBER<br>846                     | Page 2 of 3 |         |                    |      |       |      |       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|------------------------------------------|-------------|---------|--------------------|------|-------|------|-------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                    | DATE<br>23 Aug 2012 - Thursday           |             |         |                    |      |       |      |       |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                    | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |         |                    |      |       |      |       |
| <p>No major delays in work progress during the day.<br/>         Moretrech only completed excavation from station 3+10 to 3+30 during the day as very dense material was encountered during the excavation at station 3+40.</p> <p><b>General Comments:</b><br/>         Work Completed During the Day:</p> <p>Sovereign: Provided project oversight and on-site QC of Moretrench and AMEC. Photographed progress of excavation and backfill mizing as trench advanced. Photo IDs: 082312-01 through 082312-10.</p> <p>AMEC: Provided oversight of on-site QC testing performed by Moretrench and trench exvcavation activities. Also made final determination of trench depths and if refusal criteria had been met at each 10 foot station. Performed in field Materials Fine Content testing on backfill mix.</p> <p>Moretrench: Continued mixing slurry and filling tanks. Continued backfill mixing with excavator. Completed excavation of trench from 3+10 to 3+30. Backfilled trench with 2 1/2 batches of backfill (220 cy). Backfill complete up to station 2+30. Backfill quanities summarized on Trench Profile submitted under seperate cover the USACE representatives. Performed all required on-site QC testing.<br/>         General site clean-up at end of the shift.</p> <p>Final Trench Depths at 10 foot stations during the day:</p> <table border="1"> <thead> <tr> <th>Station</th> <th>Final Trench Depth</th> </tr> </thead> <tbody> <tr> <td>3+20</td> <td>34.5'</td> </tr> <tr> <td>3+30</td> <td>35.9'</td> </tr> </tbody> </table> <p>Materials Brought on Site:</p> <p>No additional equipment brought on-site during the day.</p> <p>Equipment Brought on Site:</p> <p>No additional equipment brought on-site during the day.</p> <p>Additional Notes:</p> <p>At 1645 a small section of the sidewall of the trench, between station 3+00 and 3+20 sloughed at the crest of the working platform. Long stick excavator was able to remove most of the sloughed material.</p> <p>At the end of the work shift a hose on the diesel powered slurry plant pump broke. The small amount of leaked diesel fuel was contained within the secondary containmnet area and clean with absorbent pads. Hose to be repaired first thing the following day.</p> <p><b>Verbal Instructions given by Government:</b><br/>         No verbal instruction given by the government during the day.<br/>         Marcus Madison (USACE) on site during the late afternoon.</p> <p><b>Safety Inspection / Safety Meetings:</b><br/>         Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's viewed prior to start of work activties.</p> |                    |                                          |             | Station | Final Trench Depth | 3+20 | 34.5' | 3+30 | 35.9' |
| Station                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Final Trench Depth |                                          |             |         |                    |      |       |      |       |
| 3+20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 34.5'              |                                          |             |         |                    |      |       |      |       |
| 3+30                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 35.9'              |                                          |             |         |                    |      |       |      |       |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                    |                                          |             |         |                    |      |       |      |       |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                    |                                          |             |         |                    |      |       |      |       |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                    |                                          |             |         |                    |      |       |      |       |
| Empty space for additional notes or comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                    |                                          |             |         |                    |      |       |      |       |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           | REPORT NUMBER<br>846 <span style="float: right;">Page 3 of 3</span> |                                   |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------------------------------------------|-----------------------------------|---------------|----------------------|---------------------|-----------------|-----------|--------------------------|-------|------|-----------|---------------------------|------|-------|-----------|------------------|------|------|-----------|----------------------|------|------|-----------|------------------|------|------|---------------------------------------|-------------|-------------|-------|-------------------------------------|--|------------|-------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           | DATE<br>23 Aug 2012 - Thursday                                      |                                   |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                            |                                   |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br>No QC Deficiency items were issued today<br>No Deficiency items were corrected today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           |                                                                     |                                   |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br>No contractors had their first or last day on site today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           |                                                                     |                                   |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>LABOR HOURS</b><br>The following labor hours were Reported today: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of Employees</th> <th style="text-align: right;">Hours Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">4.0</td> <td style="text-align: right;">40.5</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">2.0</td> <td style="text-align: right;">20.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td>Sovereign</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td colspan="2">Total hours worked to date: 1,415.8</td> <td style="text-align: right;">Total 10.0</td> <td style="text-align: right;">100.5</td> </tr> </tbody> </table> |                           |                                                                     |                                   | Employer      | Labor Classification | Number of Employees | Hours Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 4.0   | 40.5 | Moretrech | LABORERS                  | 2.0  | 20.0  | Moretrech | PROJECT ENGINEER | 1.0  | 10.0 | Moretrech | SUPER - CONSTRUCTION | 1.0  | 10.0 | Sovereign | PROJECT ENGINEER | 1.0  | 10.0 | Sovereign                             | SUPER - JOB | 1.0         | 10.0  | Total hours worked to date: 1,415.8 |  | Total 10.0 | 100.5 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Labor Classification      | Number of Employees                                                 | Hours Worked                      |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | HEAVY-EQUIPMENT OPERATOR  | 4.0                                                                 | 40.5                              |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | LABORERS                  | 2.0                                                                 | 20.0                              |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | PROJECT ENGINEER          | 1.0                                                                 | 10.0                              |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | SUPER - CONSTRUCTION      | 1.0                                                                 | 10.0                              |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | PROJECT ENGINEER          | 1.0                                                                 | 10.0                              |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | SUPER - JOB               | 1.0                                                                 | 10.0                              |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Total hours worked to date: 1,415.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           | Total 10.0                                                          | 100.5                             |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>EQUIPMENT HOURS</b><br>The following equipment hours were Reported today: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle Hours</th> <th style="text-align: right;">Operating Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">10.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Exacavtor with Long Stick</td> <td style="text-align: right;">0.50</td> <td style="text-align: right;">10.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">6.00</td> <td style="text-align: right;">4.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">9.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">9.50</td> </tr> <tr> <td colspan="2">Total operating hours to date: 303.50</td> <td style="text-align: right;">Total 19.00</td> <td style="text-align: right;">33.50</td> </tr> </tbody> </table>                                                                                                                                                                         |                           |                                                                     |                                   | Serial Number | Description          | Idle Hours          | Operating Hours | N/A       | Bull Dozer               | 10.50 | 0.00 | N/A       | Exacavtor with Long Stick | 0.50 | 10.00 | N/A       | Loader           | 6.00 | 4.50 | N/A       | Mixing Excavator     | 1.00 | 9.50 | N/A       | Mixing Loader    | 1.00 | 9.50 | Total operating hours to date: 303.50 |             | Total 19.00 | 33.50 |                                     |  |            |       |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Description               | Idle Hours                                                          | Operating Hours                   |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Bull Dozer                | 10.50                                                               | 0.00                              |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Exacavtor with Long Stick | 0.50                                                                | 10.00                             |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Loader                    | 6.00                                                                | 4.50                              |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Mixing Excavator          | 1.00                                                                | 9.50                              |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Mixing Loader             | 1.00                                                                | 9.50                              |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Total operating hours to date: 303.50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           | Total 19.00                                                         | 33.50                             |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br>No accidents reported today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                           |                                                                     |                                   |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           |                                                                     |                                   |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           |                                                                     |                                   |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                           | DATE                                                                | SUPERINTENDENT'S INITIALS<br>DATE |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |

|                                                                                     |                                                                                                      |                                          |             |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |                                                                                                      | REPORT NUMBER<br>847                     | Page 1 of 2 |
|                                                                                     |                                                                                                      | DATE<br>24 Aug 2012 - Friday             |             |
| PROJECT<br>Shepley's Landfill, Devens Cutoff Wall                                   |                                                                                                      | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             | WEATHER<br>Weather Caused No Delay<br>Temperature Min 70 °F, Max 86 °F; No Precipitation; 5 MPH Wind |                                          |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench and AMEC. Provided on-site QC and documentation.  
 AMEC - Provided on-site engineering services and oversight of all field QC testing.  
 Moretrench - Excavation and Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
 Contruction of Working Platform

**Quality Control Inspections and Activities (List by Feature of Work)**  
 No on-site QC tests performed during the day as trenching and slurry operations did not occur.

Backfill Slope soundings conducted at stations at the start of the shift.

**Did anything develop that may lead to a Change Order/Claim?**  
 No developments that may lead to a Change Oder during the day.

**Were there any Delays in Work Progress today?**  
 No major delays in work progress during the day.

**General Comments:**  
 Work Completed During the Day:

Sovereign: Provided project oversight and on-site QC of Moretrench and AMEC. Photographed progress of continuation of construction of the working platform. Photo IDs: 082412-01 through 082312-17.

AMEC: Completed soundings of trench at beginning of shift.

Moretrench: Constructed working platform from 4+50 to 6+25. Cleaned up mixing area and adjacent areas along the trench. General site clean-up at end of the shift.

Materials Brought on Site:

No additional equipment brought on-site during the day.

Equipment Brought on Site:

No additional equipment brought on-site during the day.

Additional Notes:

At the end of the work shift on 8-23-12 a hose on the diesel powered slurry plant pump broke. Hose was repaired first thing in the morning. Pump back in good working order.

**Verbal Instructions given by Government:**  
 Ellen Iorio and Zach Mothershed (USACE) on site during the late morning.

Ellen asked that the height of the berm in the area of the drainage swale be increased to ensure slurry mixed with temporarily stockpiled excavation cuttings did not impact the road.

This has been completed by Moretrench.

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           | REPORT NUMBER<br>847 <span style="float: right;">Page 2 of 2</span> |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------------------------------------------|--------------------|---------------|----------------------|------------------------|--------------------|-----------|--------------------------|------|------|-----------|---------------------------|------|------|-----------|------------------|------|------|-----------|----------------------|------|------|-----------|------------------|------|------|---------------------------------------|-------------|-------------|-------|-------------------------------------|--|------------|------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           | DATE<br>24 Aug 2012 - Friday                                        |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| <b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviued prior to start of work activties.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">4.0</td> <td style="text-align: right;">32.5</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">2.0</td> <td style="text-align: right;">16.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Sovereign</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">3.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total hours worked to date: 1,491.3</td> <td style="text-align: right; border-top: 1px solid black;">Total 10.0</td> <td style="text-align: right; border-top: 1px solid black;">75.5</td> </tr> </tbody> </table> |                           |                                                                     |                    | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 4.0  | 32.5 | Moretrech | LABORERS                  | 2.0  | 16.0 | Moretrech | PROJECT ENGINEER | 1.0  | 8.0  | Moretrech | SUPER - CONSTRUCTION | 1.0  | 8.0  | Sovereign | PROJECT ENGINEER | 1.0  | 3.0  | Sovereign                             | SUPER - JOB | 1.0         | 8.0   | Total hours worked to date: 1,491.3 |  | Total 10.0 | 75.5 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Labor Classification      | Number of<br>Employees                                              | Hours<br>Worked    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | HEAVY-EQUIPMENT OPERATOR  | 4.0                                                                 | 32.5               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | LABORERS                  | 2.0                                                                 | 16.0               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | PROJECT ENGINEER          | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | SUPER - CONSTRUCTION      | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | PROJECT ENGINEER          | 1.0                                                                 | 3.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | SUPER - JOB               | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| Total hours worked to date: 1,491.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           | Total 10.0                                                          | 75.5               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| <b>EQUIPMENT HOURS</b><br><b>The following equipment hours were Reported today:</b> <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle<br/>Hours</th> <th style="text-align: right;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">0.50</td> <td style="text-align: right;">8.00</td> </tr> <tr> <td>N/A</td> <td>Exacavtor with Long Stick</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">4.00</td> <td style="text-align: right;">4.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">7.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">7.50</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total operating hours to date: 331.00</td> <td style="text-align: right; border-top: 1px solid black;">Total 15.00</td> <td style="text-align: right; border-top: 1px solid black;">27.50</td> </tr> </tbody> </table>                                                                                                                                                                      |                           |                                                                     |                    | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A       | Bull Dozer               | 0.50 | 8.00 | N/A       | Exacavtor with Long Stick | 8.50 | 0.00 | N/A       | Loader           | 4.00 | 4.50 | N/A       | Mixing Excavator     | 1.00 | 7.50 | N/A       | Mixing Loader    | 1.00 | 7.50 | Total operating hours to date: 331.00 |             | Total 15.00 | 27.50 |                                     |  |            |      |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Description               | Idle<br>Hours                                                       | Operating<br>Hours |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Bull Dozer                | 0.50                                                                | 8.00               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Exacavtor with Long Stick | 8.50                                                                | 0.00               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Loader                    | 4.00                                                                | 4.50               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Mixing Excavator          | 1.00                                                                | 7.50               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Mixing Loader             | 1.00                                                                | 7.50               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| Total operating hours to date: 331.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           | Total 15.00                                                         | 27.50              |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| <b>CONTRACTOR CERTIFICATION</b> <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | DATE                      | SUPERINTENDENT'S INITIALS                                           | DATE               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |



|                                                                                     |  |                                                                                                       |             |
|-------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |  | REPORT NUMBER<br>850                                                                                  | Page 1 of 3 |
|                                                                                     |  | DATE<br>27 Aug 2012 - Monday                                                                          |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |  | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                              |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             |  | WEATHER<br>Weather Caused No Delay<br>Temperature Min 70 °F, Max 91 °F; No Precipitation; 10 MPH Wind |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench and AMEC. Provided on-site QC and documentation.  
 AMEC - Provided on-site engineering services and oversight of all field QC testing.  
 Moretrench - Excavation and Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
 Contruction of Working Platform

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Moretrench completed on-site QC testing of slurry being mixed in tanks prior to placement in trench along with on-site QC testing of slurry within the trench. Moretrech and AMEC also conducted on-site QC testing of backfill batches. Samples of backfill batches also collected for off-site QC testing. AMEC provided oversight of all Moretrench field QC testing to confirm testing was completed properly as per project specification and all results were within acceptable ranges.

On-site QC Testing Performed:

Bentonite Slurry:

|                          |                   |
|--------------------------|-------------------|
| Test                     | Time Conducted    |
| Viscosity-Initial        | 0850 & 1315       |
| Viscosity- In trench     | 1130, 1415 & 1510 |
| Density- Initial         | 0854 & 1316       |
| Density- In trench       | 1133, 1418 & 1515 |
| Filtrate Loss- Initial   | 0925 & 1347       |
| Filtrate Loss- In trench | 1204, 1449 & 1550 |
| pH- Initial              | 0900 & 1508       |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Soil-Bentonite Backfill:

|         |                     |
|---------|---------------------|
| Test    | Time Conducted      |
| Slump   | 1005, 1345, & 1550  |
| Density | 1020, 14000, & 1620 |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Samples collected of Soil-Bentonite Backfill for off-site analysis of Permeability, Gradation, and Materials Fines Content. AMEC completed field Materials Fines Content testing on backfill mix for batches 12 through 14. Results of Fine Content % ranged from 42% in Batch 13 to 44% in Batch 14. Average for all 3 batches was 43%.

Backfill Slope soundings conducted at stations at the start and end of the work shift.  
 Current trench profile emailed under seperate cover to USACE representatives.

**Did anything develop that may lead to a Change Order/Claim ?**  
 No developments that may lead to a Change Oder during the day.

**Were there any Delays in Work Progress today?**

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                    | REPORT NUMBER<br>850                     | Page 2 of 3 |         |                    |      |       |      |       |      |       |      |       |      |       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|------------------------------------------|-------------|---------|--------------------|------|-------|------|-------|------|-------|------|-------|------|-------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                    | DATE<br>27 Aug 2012 - Monday             |             |         |                    |      |       |      |       |      |       |      |       |      |       |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                    | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |         |                    |      |       |      |       |      |       |      |       |      |       |
| <p>No major delays in work progress during the day.</p> <p><b>General Comments:</b><br/>         Work Completed During the Day:</p> <p>Sovereign: Provided project oversight and on-site QC of Moretrench and AMEC. Photographed progress of excavation and backfill mixing as trench advanced. Photo IDs: 082712-01 through 082712-08.</p> <p>AMEC: Provided oversight of on-site QC testing performed by Moretrench and trench exvcavation activities. Also made final determination of trench depths and if refusal criteria had been met at each 10 foot station. Performed in field Materials Fine Content testing on backfill mix.</p> <p>Moretrench: Continued mixing slurry and filling tanks. Continued backfill mixing with excavator. Completed excavation of trench from 3+30 to 3+80. Backfilled trench with 2 1/2 batches of backfill (220 cy). Backfill complete up to station 2+60. Backfill quantities summarized on Trench Profile submitted under seperate cover the USACE representatives. Performed all required on-site QC testing.</p> <p>General site clean-up at end of the shift.</p> <p>Final Trench Depths at 10 foot stations during the day:</p> <table border="1"> <thead> <tr> <th>Station</th> <th>Final Trench Depth</th> </tr> </thead> <tbody> <tr> <td>3+40</td> <td>40.1'</td> </tr> <tr> <td>3+50</td> <td>42.0'</td> </tr> <tr> <td>3+60</td> <td>42.0'</td> </tr> <tr> <td>3+70</td> <td>44.0'</td> </tr> <tr> <td>3+80</td> <td>43.5'</td> </tr> </tbody> </table> <p>Materials Brought on Site:</p> <p>75cys of Imported Clay Borrow for backfill mix (W.J. Graves)</p> <p>Equipment Brought on Site:</p> <p>No additional equipment brought on-site during the day.</p> <p>Additional Notes:</p> <p>It was observed that some sloughing had occured over the weekend between station 2+60 and 2+80. Slough did not fall into the trench. At was determined by AMEC and Moretrench it would create more problems if the excavator operator tried to move mats back up the trench to remove the slough as more material would get knocked into the trench.</p> <p><b>Verbal Instructions given by Government:</b><br/>         No verbal instruction given by the government during the day.</p> <p>Zach Mothershed (USACE) on site during the morning.</p> <p>Marcus Madison (USACE) on site during the late afternoon.</p> <p><b>Safety Inspection / Safety Meetings:</b><br/>         Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviuewed prior to start of work activties.</p> |                    |                                          |             | Station | Final Trench Depth | 3+40 | 40.1' | 3+50 | 42.0' | 3+60 | 42.0' | 3+70 | 44.0' | 3+80 | 43.5' |
| Station                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Final Trench Depth |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |
| 3+40                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 40.1'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |
| 3+50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 42.0'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |
| 3+60                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 42.0'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |
| 3+70                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 44.0'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |
| 3+80                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 43.5'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |
| Empty space for additional notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           | REPORT NUMBER<br>850 <span style="float: right;">Page 3 of 3</span> |                                   |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------------------------------------------|-----------------------------------|---------------|----------------------|---------------------|-----------------|-----------|--------------------------|-------|------|-----------|---------------------------|------|-------|-----------|------------------|------|------|-----------|----------------------|------|------|-----------|------------------|------|------|---------------------------------------|-------------|-------------|-------|-------------------------------------|--|------------|-------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           | DATE<br>27 Aug 2012 - Monday                                        |                                   |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                            |                                   |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br>No QC Deficiency items were issued today<br>No Deficiency items were corrected today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           |                                                                     |                                   |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br>No contractors had their first or last day on site today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           |                                                                     |                                   |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>LABOR HOURS</b><br>The following labor hours were Reported today: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of Employees</th> <th style="text-align: right;">Hours Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">4.0</td> <td style="text-align: right;">40.5</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">2.0</td> <td style="text-align: right;">20.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td>Sovereign</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td colspan="2">Total hours worked to date: 1,591.8</td> <td style="text-align: right;">Total 10.0</td> <td style="text-align: right;">100.5</td> </tr> </tbody> </table> |                           |                                                                     |                                   | Employer      | Labor Classification | Number of Employees | Hours Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 4.0   | 40.5 | Moretrech | LABORERS                  | 2.0  | 20.0  | Moretrech | PROJECT ENGINEER | 1.0  | 10.0 | Moretrech | SUPER - CONSTRUCTION | 1.0  | 10.0 | Sovereign | PROJECT ENGINEER | 1.0  | 10.0 | Sovereign                             | SUPER - JOB | 1.0         | 10.0  | Total hours worked to date: 1,591.8 |  | Total 10.0 | 100.5 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Labor Classification      | Number of Employees                                                 | Hours Worked                      |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | HEAVY-EQUIPMENT OPERATOR  | 4.0                                                                 | 40.5                              |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | LABORERS                  | 2.0                                                                 | 20.0                              |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | PROJECT ENGINEER          | 1.0                                                                 | 10.0                              |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | SUPER - CONSTRUCTION      | 1.0                                                                 | 10.0                              |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | PROJECT ENGINEER          | 1.0                                                                 | 10.0                              |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | SUPER - JOB               | 1.0                                                                 | 10.0                              |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Total hours worked to date: 1,591.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           | Total 10.0                                                          | 100.5                             |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>EQUIPMENT HOURS</b><br>The following equipment hours were Reported today: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle Hours</th> <th style="text-align: right;">Operating Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">10.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Exacavtor with Long Stick</td> <td style="text-align: right;">0.50</td> <td style="text-align: right;">10.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">6.00</td> <td style="text-align: right;">4.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">9.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">9.50</td> </tr> <tr> <td colspan="2">Total operating hours to date: 364.50</td> <td style="text-align: right;">Total 19.00</td> <td style="text-align: right;">33.50</td> </tr> </tbody> </table>                                                                                                                                                                         |                           |                                                                     |                                   | Serial Number | Description          | Idle Hours          | Operating Hours | N/A       | Bull Dozer               | 10.50 | 0.00 | N/A       | Exacavtor with Long Stick | 0.50 | 10.00 | N/A       | Loader           | 6.00 | 4.50 | N/A       | Mixing Excavator     | 1.00 | 9.50 | N/A       | Mixing Loader    | 1.00 | 9.50 | Total operating hours to date: 364.50 |             | Total 19.00 | 33.50 |                                     |  |            |       |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Description               | Idle Hours                                                          | Operating Hours                   |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Bull Dozer                | 10.50                                                               | 0.00                              |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Exacavtor with Long Stick | 0.50                                                                | 10.00                             |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Loader                    | 6.00                                                                | 4.50                              |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Mixing Excavator          | 1.00                                                                | 9.50                              |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Mixing Loader             | 1.00                                                                | 9.50                              |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Total operating hours to date: 364.50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           | Total 19.00                                                         | 33.50                             |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br>No accidents reported today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                           |                                                                     |                                   |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           |                                                                     |                                   |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           |                                                                     |                                   |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                           | DATE                                                                | SUPERINTENDENT'S INITIALS<br>DATE |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |

|                                                                                     |                                                                                                         |                               |             |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|-------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |                                                                                                         | REPORT NUMBER<br>851          | Page 1 of 3 |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |                                                                                                         | DATE<br>28 Aug 2012 - Tuesday |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             | WEATHER<br>Weather Caused No Delay<br>Temperature Min 0 °F, Max 0 °F; 0.25 IN Precipitation; 5 MPH Wind |                               |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench and AMEC. Provided on-site QC and documentation.  
 AMEC - Provided on-site engineering services and oversight of all field QC testing.  
 Moretrench - Excavation and Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
 Contruction of Working Platform

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Follow-up inspection held for DFW: Soil-Bentonite Wall Construction

All imported borrow material used for backfill mix was visually inspected upon arrival.

Moretrench completed on-site QC testing of slurry being mixed in tanks prior to placement in trench along with on-site QC testing of slurry within the trench. Moretrech and AMEC also conducted on-site QC testing of backfill batches. Samples of backfill batches also collected for off-site QC testing. AMEC provided oversight of all Moretrench field QC testing to confirm testing was completed properly as per project specification and all results were within acceptable ranges. As excavation activties were only conducted for half the work only half the amount of required field QC for a full work shift was completed during the day.

On-site QC Testing Performed:

Bentonite Slurry:

| Test                     | Time Conducted |
|--------------------------|----------------|
| Viscosity-Initial        | 1250           |
| Viscosity- In trench     | 1420 &1535     |
| Density- Initial         | 1255           |
| Density- In trench       | 1423 &1538     |
| Filtrate Loss- Initial   | 1326           |
| Filtrate Loss- In trench | 1455 & 1610    |
| pH- Initial              | 1258           |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Soil-Bentonite Backfill:

| Test    | Time Conducted |
|---------|----------------|
| Slump   | 1045 & 1545    |
| Density | 1100 & 1600    |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Samples collected of Soil-Bentonite Backfill for off-site analysis of Permeability, Gradation, and Materials Fines Content. AMEC completed field Materials Fines Content testing on backfill mix for batch 15. Results of Fine Content % from Batch 15 was 52%..

Backfill Slope soundings conducted at stations at the start and end of the work shift. Current trench profile emailed under seperate cover to USACE representatives.

**Did anything develop that may lead to a Change Order/Claim ?**

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                    | REPORT NUMBER<br>851                     | Page 2 of 3 |         |                    |      |       |      |       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|------------------------------------------|-------------|---------|--------------------|------|-------|------|-------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                    | DATE<br>28 Aug 2012 - Tuesday            |             |         |                    |      |       |      |       |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |         |                    |      |       |      |       |
| <p>No developments that may lead to a Change Oder during the day.</p> <p><b>Were there any Delays in Work Progress today?</b><br/>         No major delays in work progress during the day.</p> <p><b>General Comments:</b><br/>         Work Completed During the Day:</p> <p>Sovereign: Provided project oversight and on-site QC of Moretrench and AMEC. Photographed progress of excavation and backfill mixing as trench advanced. Photo IDs: 082812-01 through 082728-16.</p> <p>AMEC: Provided oversight of on-site QC testing performed by Moretrench and trench exvcavation activities. Also made final determination of trench depths and if refusal criteria had been met at each 10 foot station. Performed in field Materials Fine Content testing on backfill mix.</p> <p>Moretrench: Continued mixing slurry and filling tanks. Continued backfill mixing with excavator. Excavation activites only conducted during second half of the work shift. During the first half of the work shift Moretrench worked on cutting out of the bank to the east of the barrier wall alignment from approximately station 7+00 to 8+50 to allow room more the excvator and crane mats. Berm comprised of all sand with a 6 inch to 1 foot layer of topsoil and vegetation. Completed excavation of trench from 3+80 to 4+00. Backfilled trench with 1 1/2 batches of backfill. Backfill complete up to station 2+80. Backfill quantities summarized on Trench Profile submitted under seperate cover the USACE representatives. Performed all required on-site QC testing.<br/>         General site clean-up at end of the shift.</p> <p>Final Trench Depths at 10 foot stations during the day:</p> <table border="1"> <thead> <tr> <th>Station</th> <th>Final Trench Depth</th> </tr> </thead> <tbody> <tr> <td>3+90</td> <td>45.0'</td> </tr> <tr> <td>4+00</td> <td>44.1'</td> </tr> </tbody> </table> <p>Materials Brought on Site:</p> <p>250 cys of Imported Clay Borrow for backfill mix (W.J. Graves)</p> <p>Equipment Brought on Site:</p> <p>No additional equipment brought on-site during the day.</p> <p>Additional Notes:</p> <p>During monring trench soundings it was observed that the sounding at station 3+20 was approximately 2 feet shallower than the end of the day sound on 8-27-10 at the same station. However, stations 3+00 and 3+10 were measured 1 to 2 feet deeper. It is probable that backfill slid from stations 3+00 and 3+10 and settled at station 3+20 overnight. There was no evidence of slough or cave in at these stations.</p> <p>Landfill liner was encountered at approximately station 4+15 at a depth of approximately 2 feet below exsisting grade and has continued as excavation activites proceed down the alignment.</p> <p><b>Verbal Instructions given by Government:</b><br/>         No verbal instruction given by the government during the day.</p> <p>Zach Mothershed (USACE Project Engineer) and John Kollberg (USACE Geo-tech Eng.) on site during the afternoon.</p> <p><b>Safety Inspection / Safety Meetings:</b><br/>         Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviuewed prior to start of work activties.</p> |                    |                                          |             | Station | Final Trench Depth | 3+90 | 45.0' | 4+00 | 44.1' |
| Station                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Final Trench Depth |                                          |             |         |                    |      |       |      |       |
| 3+90                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 45.0'              |                                          |             |         |                    |      |       |      |       |
| 4+00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 44.1'              |                                          |             |         |                    |      |       |      |       |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                    |                                          |             |         |                    |      |       |      |       |
| Empty space for additional notes or comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |                                          |             |         |                    |      |       |      |       |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           | REPORT NUMBER<br>851 <span style="float: right;">Page 3 of 3</span> |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------------------------------------------|--------------------|---------------|----------------------|------------------------|--------------------|-----------|--------------------------|-------|------|-----------|---------------------------|------|------|-----------|------------------|------|------|-----------|----------------------|------|------|-----------|------------------|------|------|---------------------------------------|-------------|-------------|-------|-------------------------------------|--|------------|-------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                           | DATE<br>28 Aug 2012 - Tuesday                                       |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>ACTIVITY START/FINISH</b><br>No activities were started or finished today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>QC REQUIREMENTS</b><br>No QC requirements were completed today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br>No QC Deficiency items were issued today<br>No Deficiency items were corrected today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br>No contractors had their first or last day on site today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>LABOR HOURS</b><br>The following labor hours were Reported today: <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">4.0</td> <td style="text-align: right;">40.5</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">2.0</td> <td style="text-align: right;">20.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td>Sovereign</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total hours worked to date: 1,692.3</td> <td style="text-align: right; border-top: 1px solid black;">Total 10.0</td> <td style="text-align: right; border-top: 1px solid black;">100.5</td> </tr> </tbody> </table> |                           |                                                                     |                    | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 4.0   | 40.5 | Moretrech | LABORERS                  | 2.0  | 20.0 | Moretrech | PROJECT ENGINEER | 1.0  | 10.0 | Moretrech | SUPER - CONSTRUCTION | 1.0  | 10.0 | Sovereign | PROJECT ENGINEER | 1.0  | 10.0 | Sovereign                             | SUPER - JOB | 1.0         | 10.0  | Total hours worked to date: 1,692.3 |  | Total 10.0 | 100.5 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Labor Classification      | Number of<br>Employees                                              | Hours<br>Worked    |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | HEAVY-EQUIPMENT OPERATOR  | 4.0                                                                 | 40.5               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | LABORERS                  | 2.0                                                                 | 20.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | PROJECT ENGINEER          | 1.0                                                                 | 10.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | SUPER - CONSTRUCTION      | 1.0                                                                 | 10.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | PROJECT ENGINEER          | 1.0                                                                 | 10.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | SUPER - JOB               | 1.0                                                                 | 10.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Total hours worked to date: 1,692.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           | Total 10.0                                                          | 100.5              |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>EQUIPMENT HOURS</b><br>The following equipment hours were Reported today: <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle<br/>Hours</th> <th style="text-align: right;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">10.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Exacavtor with Long Stick</td> <td style="text-align: right;">5.50</td> <td style="text-align: right;">5.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">6.00</td> <td style="text-align: right;">4.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">9.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">9.50</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total operating hours to date: 393.00</td> <td style="text-align: right; border-top: 1px solid black;">Total 24.00</td> <td style="text-align: right; border-top: 1px solid black;">28.50</td> </tr> </tbody> </table>                                                                                                                                                                          |                           |                                                                     |                    | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A       | Bull Dozer               | 10.50 | 0.00 | N/A       | Exacavtor with Long Stick | 5.50 | 5.00 | N/A       | Loader           | 6.00 | 4.50 | N/A       | Mixing Excavator     | 1.00 | 9.50 | N/A       | Mixing Loader    | 1.00 | 9.50 | Total operating hours to date: 393.00 |             | Total 24.00 | 28.50 |                                     |  |            |       |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Description               | Idle<br>Hours                                                       | Operating<br>Hours |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Bull Dozer                | 10.50                                                               | 0.00               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Exacavtor with Long Stick | 5.50                                                                | 5.00               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Loader                    | 6.00                                                                | 4.50               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Mixing Excavator          | 1.00                                                                | 9.50               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Mixing Loader             | 1.00                                                                | 9.50               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Total operating hours to date: 393.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           | Total 24.00                                                         | 28.50              |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br>No accidents reported today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | DATE                      | SUPERINTENDENT'S INITIALS                                           | DATE               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |

|                                                                                     |  |                                                                                                     |             |
|-------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |  | REPORT NUMBER<br>852                                                                                | Page 1 of 4 |
|                                                                                     |  | DATE<br>29 Aug 2012 - Wednesday                                                                     |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |  | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                            |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             |  | WEATHER<br>Weather Caused No Delay<br>Temperature Min 0 °F, Max 0 °F; No Precipitation; 10 MPH Wind |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench and AMEC. Provided on-site QC and documentation.  
 AMEC - Provided on-site engineering services and oversight of all field QC testing.  
 Moretrench - Excavation and Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
 Contruction of Working Platform

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Initial Inspection for DFW: Stockpiling of Soil Materails held during the day.

All imported clay borrow used for backfill mix inspected upon deliveries.

Moretrench completed on-site QC testing of slurry being mixed in tanks prior to placement in trench along with on-site QC testing of slurry within the trench. Moretrech and AMEC also conducted on-site QC testing of backfill batches. Samples of backfill batches also collected for off-site QC testing. AMEC provided oversight of all Moretrench field QC testing to confirm testing was completed properly as per project specification and all results were within acceptable ranges.

On-site QC Testing Performed:

Bentonite Slurry:

| Test                     | Time Conducted    |
|--------------------------|-------------------|
| Viscosity-Initial        | 0830 & 1450       |
| Viscosity- In trench     | 0910, 1030 & 1530 |
| Density- Initial         | 0832 & 1453       |
| Density- In trench       | 0915, 1034 & 1533 |
| Filtrate Loss- Initial   | 0905 & 1525       |
| Filtrate Loss- In trench | 0950, 1105 & 1604 |
| pH- Initial              | 0840 & 1456       |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Soil-Bentonite Backfill:

| Test    | Time Conducted |
|---------|----------------|
| Slump   | 1115 & 1438    |
| Density | 1134 & 1500    |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Samples collected of Soil-Bentonite Backfill for off-site analysis of Permeability, Gradation, and Materials Fines Content. AMEC completed field Materials Fines Content testing on backfill mix for batch 16. Results of Fine Content % in Batch 16 was 41%.

Backfill Slope soundings conducted at stations at the start and end of the work shift. Current trench profile emailed under seperate cover to USACE representatives.

**Did anything develop that may lead to a Change Order/Claim ?**

**CONTRACTORS QUALITY CONTROL REPORT (QCR)**  
**DAILY LOG OF CONSTRUCTION**

REPORT NUMBER  
852 Page 2 of 4

DATE  
29 Aug 2012 - Wednesday

PROJECT  
Shepley's Landfil, Devens Cutoff Wall

CONTRACT NUMBER  
W912WJ-10-D-0003 0002

No developments that may lead to a Change Oder during the day.

**Were there any Delays in Work Progress today?**

No major delays in work progress during the day.

**General Comments:**

Work Completed During the Day:

Sovereign: Provided project oversight and on-site QC of Moretrench and AMEC. Photographed progress of excavation and backfill mixing as trench advanced. Photo IDs: 082912-01 through 082912-07.

AMEC: Geotechnical Engineer and Principi Geotechnical Engineer provided oversight of on-site QC testing performed by Moretrench and trench exvavation activities. Due to high degree of concern of ensuring contact with compontent bedrock at station 4+00 and 5+00 AMEC Principi Geotechnical Engineer made all final determination of trench depths and if refusal criteria had been met at each 10 foot station. Performed in field Materials Fine Content testing on backfill mix.

Moretrench: Continued mixing slurry and filling tanks. Cleaned-up working platform from station 5+00 to station 6+00. Continued backfill mixing with excavator. Completed excavation of trench from 4+00 to 4+50. Backfilled trench with 1 1/2 batches of backfill. Backfill complete up to station 3+10. Backfill quantities summarized on Trench Profile submitted under seperate cover the USACE representatives. Performed all required on-site QC testing.  
General site clean-up at end of the shift.

Final Trench Depths at 10 foot stations during the day:

| Station | Final Trench Depth |
|---------|--------------------|
| 4+10    | 42.8'              |
| 4+20    | 42.1'              |
| 4+30    | 41.2'              |
| 4+40    | 40.0'              |

Materials Brought on Site:

50 cys of Imported Clay Borrow for backfill mix (W.J. Graves)

Equipment Brought on Site:

No additional equipment brought on-site during the day.

Additional Notes:

A lengthy discussion was held between Sovereign, AMEC and the USACE (Ellen Iorio) about the refusal depth of station 4+50 due to bedrock being found at shallower depth than anticipated. Borings logs and working platform elevations were reviewed in detail. It was concured that the area of weathered bedrock shown on the specification drawings was an interpatation from two boring logs in the vicinity of of station 4+50. Boring SHL 11-02 had shown evidence of weathered bedrock which has and approximate off-set of 20 feet. Boring SHL 12-06 which was approximately on the proposed alignment of the trench showed no weathered bedrock and a depth of 42 feet. Moretrench was not able to excavated deeper than 39.4 feet at station 4+50. This was after two and half hrs of working on the station from both ways of the cross at the vertex of the trench. It was agreeded that Moretrench will try to excavate a little more in the area the morning of the following day and if no progress in a downward trend was shown then it would be determined that refusal had been met.

Representatives of MassDEP and US EPA on-site throughout the day. All regulators were given periodic updates on the status of work.

**Verbal Instructions given by Government:**

Numerous USACE representatives on site through-out the day.

Zach Mothershed (USACE)  
Marcus Madison (USACE)  
Ellen Iorio (USACE)  
Jim Morrocco (USACE)



| CONTRACTORS QUALITY CONTROL REPORT (QCR)<br>DAILY LOG OF CONSTRUCTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           | REPORT NUMBER<br>852                     | Page 3 of 4     |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |       |       |           |                           |     |       |           |             |     |      |                                     |  |       |      |  |  |  |       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|------------------------------------------|-----------------|---------------|----------------------|---------------------|-----------------|-----------|--------------------------|-------|------|-----------|---------------------------|------|-------|-----------|------------------|------|------|-----------|----------------------|------|------|-----------|------------------|------|------|---------------------------------------|-----------------|-------|-------|-----------|---------------------------|-----|-------|-----------|-------------|-----|------|-------------------------------------|--|-------|------|--|--|--|-------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           | DATE<br>29 Aug 2012 - Wednesday          |                 |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |       |       |           |                           |     |       |           |             |     |      |                                     |  |       |      |  |  |  |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |                 |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |       |       |           |                           |     |       |           |             |     |      |                                     |  |       |      |  |  |  |       |
| <p>No verbal instruction given by the government during the day except for process of determination of refusal at station 4+50 described in General Comment section of the QC Narrative.</p> <p><b>Safety Inspection / Safety Meetings:</b><br/> Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviuewed prior to start of work activties.</p> <p>Due to the high number of visitors to the site during the day caution tape was strung of the tented site sign-in area along the west side of the haul road to approximately station 6+50. All visitors were checked-in, given a safety briefing on all the hazards of the site and escorted on the inside of the caution tape to the viewing area marked with cones, barricones, and flags.</p>                                                                                                                                                                                                                                                                                                                      |                           |                                          |                 |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |       |       |           |                           |     |       |           |             |     |      |                                     |  |       |      |  |  |  |       |
| <p><b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)</p> <p><b>No preparatory inspections were held today</b></p> <p><b>An initial inspection was held today for the following feature:</b><br/> Stockpiling of Soil Materials</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           |                                          |                 |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |       |       |           |                           |     |       |           |             |     |      |                                     |  |       |      |  |  |  |       |
| <p><b>ACTIVITY START/FINISH</b></p> <p><b>No activities were started or finished today</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           |                                          |                 |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |       |       |           |                           |     |       |           |             |     |      |                                     |  |       |      |  |  |  |       |
| <p><b>QC REQUIREMENTS</b></p> <p><b>No QC requiremements were completed today</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           |                                          |                 |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |       |       |           |                           |     |       |           |             |     |      |                                     |  |       |      |  |  |  |       |
| <p><b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)</p> <p><b>No QC Deficiency items were issued today</b></p> <p><b>No Deficiency items were corrected today</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           |                                          |                 |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |       |       |           |                           |     |       |           |             |     |      |                                     |  |       |      |  |  |  |       |
| <p><b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)</p> <p><b>No contractors had their first or last day on site today</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           |                                          |                 |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |       |       |           |                           |     |       |           |             |     |      |                                     |  |       |      |  |  |  |       |
| <p><b>LABOR HOURS</b></p> <p><b>The following labor hours were Reported today:</b></p> <table border="1"> <thead> <tr> <th>Employer</th> <th>Labor Classification</th> <th>Number of Employees</th> <th>Hours Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td>4.0</td> <td>40.5</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td>2.0</td> <td>20.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td>1.0</td> <td>10.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td>1.0</td> <td>10.0</td> </tr> <tr> <td>Sovereign</td> <td>PROJECT ENGINEER</td> <td>2.0</td> <td>20.0</td> </tr> <tr> <td>Sovereign</td> <td>PROJECT MANAGER</td> <td>3.0</td> <td>15.0</td> </tr> <tr> <td>Sovereign</td> <td>SAFETY ENGINEER - ON SITE</td> <td>1.0</td> <td>10.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td>1.0</td> <td>10.0</td> </tr> <tr> <td colspan="2">Total hours worked to date: 1,827.8</td> <td>Total</td> <td>15.0</td> </tr> <tr> <td colspan="2"></td> <td></td> <td>135.5</td> </tr> </tbody> </table> |                           |                                          |                 | Employer      | Labor Classification | Number of Employees | Hours Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 4.0   | 40.5 | Moretrech | LABORERS                  | 2.0  | 20.0  | Moretrech | PROJECT ENGINEER | 1.0  | 10.0 | Moretrech | SUPER - CONSTRUCTION | 1.0  | 10.0 | Sovereign | PROJECT ENGINEER | 2.0  | 20.0 | Sovereign                             | PROJECT MANAGER | 3.0   | 15.0  | Sovereign | SAFETY ENGINEER - ON SITE | 1.0 | 10.0  | Sovereign | SUPER - JOB | 1.0 | 10.0 | Total hours worked to date: 1,827.8 |  | Total | 15.0 |  |  |  | 135.5 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Labor Classification      | Number of Employees                      | Hours Worked    |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |       |       |           |                           |     |       |           |             |     |      |                                     |  |       |      |  |  |  |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | HEAVY-EQUIPMENT OPERATOR  | 4.0                                      | 40.5            |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |       |       |           |                           |     |       |           |             |     |      |                                     |  |       |      |  |  |  |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | LABORERS                  | 2.0                                      | 20.0            |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |       |       |           |                           |     |       |           |             |     |      |                                     |  |       |      |  |  |  |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | PROJECT ENGINEER          | 1.0                                      | 10.0            |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |       |       |           |                           |     |       |           |             |     |      |                                     |  |       |      |  |  |  |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | SUPER - CONSTRUCTION      | 1.0                                      | 10.0            |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |       |       |           |                           |     |       |           |             |     |      |                                     |  |       |      |  |  |  |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | PROJECT ENGINEER          | 2.0                                      | 20.0            |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |       |       |           |                           |     |       |           |             |     |      |                                     |  |       |      |  |  |  |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | PROJECT MANAGER           | 3.0                                      | 15.0            |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |       |       |           |                           |     |       |           |             |     |      |                                     |  |       |      |  |  |  |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | SAFETY ENGINEER - ON SITE | 1.0                                      | 10.0            |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |       |       |           |                           |     |       |           |             |     |      |                                     |  |       |      |  |  |  |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | SUPER - JOB               | 1.0                                      | 10.0            |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |       |       |           |                           |     |       |           |             |     |      |                                     |  |       |      |  |  |  |       |
| Total hours worked to date: 1,827.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           | Total                                    | 15.0            |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |       |       |           |                           |     |       |           |             |     |      |                                     |  |       |      |  |  |  |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           |                                          | 135.5           |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |       |       |           |                           |     |       |           |             |     |      |                                     |  |       |      |  |  |  |       |
| <p><b>EQUIPMENT HOURS</b></p> <p><b>The following equipment hours were Reported today:</b></p> <table border="1"> <thead> <tr> <th>Serial Number</th> <th>Description</th> <th>Idle Hours</th> <th>Operating Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td>10.50</td> <td>0.00</td> </tr> <tr> <td>N/A</td> <td>Exacavtor with Long Stick</td> <td>0.50</td> <td>10.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td>6.00</td> <td>4.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td>1.00</td> <td>9.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td>1.00</td> <td>9.50</td> </tr> <tr> <td colspan="2">Total operating hours to date: 426.50</td> <td>Total</td> <td>19.00</td> </tr> <tr> <td colspan="2"></td> <td></td> <td>33.50</td> </tr> </tbody> </table>                                                                                                                                                                                                                                                                                                 |                           |                                          |                 | Serial Number | Description          | Idle Hours          | Operating Hours | N/A       | Bull Dozer               | 10.50 | 0.00 | N/A       | Exacavtor with Long Stick | 0.50 | 10.00 | N/A       | Loader           | 6.00 | 4.50 | N/A       | Mixing Excavator     | 1.00 | 9.50 | N/A       | Mixing Loader    | 1.00 | 9.50 | Total operating hours to date: 426.50 |                 | Total | 19.00 |           |                           |     | 33.50 |           |             |     |      |                                     |  |       |      |  |  |  |       |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Description               | Idle Hours                               | Operating Hours |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |       |       |           |                           |     |       |           |             |     |      |                                     |  |       |      |  |  |  |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Bull Dozer                | 10.50                                    | 0.00            |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |       |       |           |                           |     |       |           |             |     |      |                                     |  |       |      |  |  |  |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Exacavtor with Long Stick | 0.50                                     | 10.00           |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |       |       |           |                           |     |       |           |             |     |      |                                     |  |       |      |  |  |  |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Loader                    | 6.00                                     | 4.50            |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |       |       |           |                           |     |       |           |             |     |      |                                     |  |       |      |  |  |  |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Mixing Excavator          | 1.00                                     | 9.50            |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |       |       |           |                           |     |       |           |             |     |      |                                     |  |       |      |  |  |  |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Mixing Loader             | 1.00                                     | 9.50            |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |       |       |           |                           |     |       |           |             |     |      |                                     |  |       |      |  |  |  |       |
| Total operating hours to date: 426.50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           | Total                                    | 19.00           |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |       |       |           |                           |     |       |           |             |     |      |                                     |  |       |      |  |  |  |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           |                                          | 33.50           |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |       |       |           |                           |     |       |           |             |     |      |                                     |  |       |      |  |  |  |       |

|                                                                                                                                                                                                                                                                                                                       |  |                                          |                           |             |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------|---------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                   |  | REPORT NUMBER<br>852                     |                           | Page 4 of 4 |
|                                                                                                                                                                                                                                                                                                                       |  | DATE<br>29 Aug 2012 - Wednesday          |                           |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                      |  | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |                           |             |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                  |  |                                          |                           |             |
|                                                                                                                                                                                                                                                                                                                       |  |                                          |                           |             |
| CONTRACTOR CERTIFICATION <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b> |  |                                          |                           |             |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                         |  | DATE                                     | SUPERINTENDENT'S INITIALS | DATE        |

|                                                                                     |                                                                                                       |                                          |             |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |                                                                                                       | REPORT NUMBER<br>853                     | Page 1 of 3 |
|                                                                                     |                                                                                                       | DATE<br>30 Aug 2012 - Thursday           |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |                                                                                                       | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             | WEATHER<br>Weather Caused No Delay<br>Temperature Min 70 °F, Max 86 °F; No Precipitation; 15 MPH Wind |                                          |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench and AMEC. Provided on-site QC and documentation.  
 AMEC - Provided on-site engineering services and oversight of all field QC testing.  
 Moretrench - Excavation and Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
 Contruction of Working Platform

**Quality Control Inspections and Activities (List by Feature of Work)**  
 All imported borrow for backfill mix inspected upon delivery.

Moretrench completed on-site QC testing of slurry being mixed in tanks prior to placement in trench along with on-site QC testing of slurry within the trench. Moretrech and AMEC also conducted on-site QC testing of backfill batches. Samples of backfill batches also collected for off-site QC testing. AMEC provided oversight of all Moretrench field QC testing to confirm testing was completed properly as per project specification and all results were within acceptable ranges.

Bentonite Slurry:

|                          |                   |
|--------------------------|-------------------|
| Test                     | Time Conducted    |
| Viscosity-Initial        | 0815 & 1400       |
| Viscosity- In trench     | 1020, 1115 & 1316 |
| Density- Initial         | 0810 & 1403       |
| Density- In trench       | 1025, 1119 & 1320 |
| Filtrate Loss- Initial   | 0849 & 1435       |
| Filtrate Loss- In trench | 1057, 1151 & 1352 |
| pH- Initial              | 0821 & 1406       |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Soil-Bentonite Backfill:

|         |                |
|---------|----------------|
| Test    | Time Conducted |
| Slump   | 1030 & 1545    |
| Density | 1046 & 1600    |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Samples collected of Soil-Bentonite Backfill for off-site analysis of Permeability, Gradation, and Materials Fines Content.

Backfill Slope soundings conducted at stations at the start and end of the work shift.  
 Current trench profile emailed under seperate cover to USACE representatives.

**Did anything develop that may lead to a Change Order/Claim?**  
 No developments that may lead to a Change Oder during the day.

**Were there any Delays in Work Progress today?**  
 No major delays in work progress during the day.

**CONTRACTORS QUALITY CONTROL REPORT (QCR)**  
**DAILY LOG OF CONSTRUCTION**

REPORT NUMBER  
853 Page 2 of 3

DATE  
30 Aug 2012 - Thursday

PROJECT  
Shepley's Landfil, Devens Cutoff Wall

CONTRACT NUMBER  
W912WJ-10-D-0003 0002

**General Comments:**

Work Completed During the Day:

Sovereign: Provided project oversight and on-site QC of Moretrench and AMEC. Photographed progress of excavation and backfill mixing as trench advanced. Photo IDs: 083012-01 through 083012-18.

AMEC: Geotechnical Engineer and Principi Geotechnical Engineer provided oversight of on-site QC testing performed by Moretrench and trench exvavation activities. Due to high degree of concern of ensuring contact with compontent bedrock at station 4+00 and 5+00 AMEC Principi Geotechnical Engineer made all final determination of trench depths and if refusal criteria had been met at each 10 foot station.

Moretrench: Continued mixing slurry and filling tanks. Continued backfill mixing with excavator. Completed excavation of trench from 4+50 to 5+20. Backfilled trench with 1 1/2 batches of backfill. Backfill complete up to station 3+80. Backfill quantities summarized on Trench Profile submitted under seperate cover the USACE representatives. Performed all required on-site QC testing.  
General site clean-up at end of the shift.

Final Trench Depths at 10 foot stations during the day:

| Station | Final Trench Depth |
|---------|--------------------|
| 4+50    | 39.4'              |
| 4+60    | 37.7'              |
| 4+70    | 36.6'              |
| 4+80    | 34.7'              |
| 4+90    | 35.0'              |
| 5+00    | 39.1'              |
| 5+10    | 39.9'              |
| 5+20    | 39.5'              |

Materials Brought on Site:

50 cys of Imported Clay Borrow for backfill mix (W.J. Graves)

Equipment Brought on Site:

No additional equipment brought on-site during the day.

Additional Notes:

Sovereign and AMEC verified the elevation of the working platform using a survey level. Based on the survey results, the verified elevation of the working platform at station 4+50 was within 0.1' of the measured elevation. This check was performed because of the discrepancy between the anticipated depth to competent rock and final trench depth.

Representatives of MassDEP and US EPA on-site throughout the day. All regulators were given periodic updates on the status of work.

**Verbal Instructions given by Government:**

Numerous USACE representatives on site through-out the day.

Zach Mothershed (USACE)  
Marcus Madison (USACE)  
Ellen Iorio (USACE)

No verbal instruction given by the government during the day.

**Safety Inspection / Safety Meetings:**

Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's reviewed prior to start of work activities.

Due to the high number of visitors to the site during the day caution tape was strung of the tented site sign-in area along the west side of the haul road to approximately station 8+50. All visitors were checked-in, given a safety briefing on all the hazards of the site and escorted on the inside of the caution tape to the viewing area marked with cones, barricones, and flags.

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                           | REPORT NUMBER<br>853 <span style="float: right;">Page 3 of 3</span> |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                 |       |       |           |                           |     |     |           |             |     |      |       |  |      |       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------------------------------------------|--------------------|---------------|----------------------|------------------------|--------------------|-----------|--------------------------|-------|------|-----------|---------------------------|------|-------|-----------|------------------|------|------|-----------|----------------------|------|------|-----------|------------------|------|------|-----------|-----------------|-------|-------|-----------|---------------------------|-----|-----|-----------|-------------|-----|------|-------|--|------|-------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           | DATE<br>30 Aug 2012 - Thursday                                      |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                 |       |       |           |                           |     |     |           |             |     |      |       |  |      |       |
| CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                 |       |       |           |                           |     |     |           |             |     |      |       |  |      |       |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                 |       |       |           |                           |     |     |           |             |     |      |       |  |      |       |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                 |       |       |           |                           |     |     |           |             |     |      |       |  |      |       |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                 |       |       |           |                           |     |     |           |             |     |      |       |  |      |       |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                 |       |       |           |                           |     |     |           |             |     |      |       |  |      |       |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                 |       |       |           |                           |     |     |           |             |     |      |       |  |      |       |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">4.0</td> <td style="text-align: right;">40.5</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">2.0</td> <td style="text-align: right;">20.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td>Sovereign</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">2.0</td> <td style="text-align: right;">20.0</td> </tr> <tr> <td>Sovereign</td> <td>PROJECT MANAGER</td> <td style="text-align: right;">3.0</td> <td style="text-align: right;">16.0</td> </tr> <tr> <td>Sovereign</td> <td>SAFETY ENGINEER - ON SITE</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td colspan="2" style="text-align: right;">Total</td> <td style="text-align: right;">15.0</td> <td style="text-align: right;">134.5</td> </tr> </tbody> </table> <p>Total hours worked to date: 1,962.3</p> |                           |                                                                     |                    | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 4.0   | 40.5 | Moretrech | LABORERS                  | 2.0  | 20.0  | Moretrech | PROJECT ENGINEER | 1.0  | 10.0 | Moretrech | SUPER - CONSTRUCTION | 1.0  | 10.0 | Sovereign | PROJECT ENGINEER | 2.0  | 20.0 | Sovereign | PROJECT MANAGER | 3.0   | 16.0  | Sovereign | SAFETY ENGINEER - ON SITE | 1.0 | 8.0 | Sovereign | SUPER - JOB | 1.0 | 10.0 | Total |  | 15.0 | 134.5 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Labor Classification      | Number of<br>Employees                                              | Hours<br>Worked    |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                 |       |       |           |                           |     |     |           |             |     |      |       |  |      |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | HEAVY-EQUIPMENT OPERATOR  | 4.0                                                                 | 40.5               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                 |       |       |           |                           |     |     |           |             |     |      |       |  |      |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | LABORERS                  | 2.0                                                                 | 20.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                 |       |       |           |                           |     |     |           |             |     |      |       |  |      |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | PROJECT ENGINEER          | 1.0                                                                 | 10.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                 |       |       |           |                           |     |     |           |             |     |      |       |  |      |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | SUPER - CONSTRUCTION      | 1.0                                                                 | 10.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                 |       |       |           |                           |     |     |           |             |     |      |       |  |      |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | PROJECT ENGINEER          | 2.0                                                                 | 20.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                 |       |       |           |                           |     |     |           |             |     |      |       |  |      |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | PROJECT MANAGER           | 3.0                                                                 | 16.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                 |       |       |           |                           |     |     |           |             |     |      |       |  |      |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | SAFETY ENGINEER - ON SITE | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                 |       |       |           |                           |     |     |           |             |     |      |       |  |      |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | SUPER - JOB               | 1.0                                                                 | 10.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                 |       |       |           |                           |     |     |           |             |     |      |       |  |      |       |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           | 15.0                                                                | 134.5              |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                 |       |       |           |                           |     |     |           |             |     |      |       |  |      |       |
| <b>EQUIPMENT HOURS</b><br><b>The following equipment hours were Reported today:</b> <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle<br/>Hours</th> <th style="text-align: right;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">10.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Exacavtor with Long Stick</td> <td style="text-align: right;">0.50</td> <td style="text-align: right;">10.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">6.00</td> <td style="text-align: right;">4.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">9.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">9.50</td> </tr> <tr> <td colspan="2" style="text-align: right;">Total</td> <td style="text-align: right;">19.00</td> <td style="text-align: right;">33.50</td> </tr> </tbody> </table> <p>Total operating hours to date: 460.00</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           |                                                                     |                    | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A       | Bull Dozer               | 10.50 | 0.00 | N/A       | Exacavtor with Long Stick | 0.50 | 10.00 | N/A       | Loader           | 6.00 | 4.50 | N/A       | Mixing Excavator     | 1.00 | 9.50 | N/A       | Mixing Loader    | 1.00 | 9.50 | Total     |                 | 19.00 | 33.50 |           |                           |     |     |           |             |     |      |       |  |      |       |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Description               | Idle<br>Hours                                                       | Operating<br>Hours |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                 |       |       |           |                           |     |     |           |             |     |      |       |  |      |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Bull Dozer                | 10.50                                                               | 0.00               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                 |       |       |           |                           |     |     |           |             |     |      |       |  |      |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Exacavtor with Long Stick | 0.50                                                                | 10.00              |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                 |       |       |           |                           |     |     |           |             |     |      |       |  |      |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Loader                    | 6.00                                                                | 4.50               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                 |       |       |           |                           |     |     |           |             |     |      |       |  |      |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Mixing Excavator          | 1.00                                                                | 9.50               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                 |       |       |           |                           |     |     |           |             |     |      |       |  |      |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Mixing Loader             | 1.00                                                                | 9.50               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                 |       |       |           |                           |     |     |           |             |     |      |       |  |      |       |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           | 19.00                                                               | 33.50              |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                 |       |       |           |                           |     |     |           |             |     |      |       |  |      |       |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                 |       |       |           |                           |     |     |           |             |     |      |       |  |      |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                 |       |       |           |                           |     |     |           |             |     |      |       |  |      |       |
| <b>CONTRACTOR CERTIFICATION</b> <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                 |       |       |           |                           |     |     |           |             |     |      |       |  |      |       |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | DATE                      | SUPERINTENDENT'S INITIALS                                           | DATE               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |                 |       |       |           |                           |     |     |           |             |     |      |       |  |      |       |

|                                                                                     |  |                                                                                                       |             |
|-------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |  | REPORT NUMBER<br>854                                                                                  | Page 1 of 3 |
|                                                                                     |  | DATE<br>31 Aug 2012 - Friday                                                                          |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |  | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                              |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             |  | WEATHER<br>Weather Caused No Delay<br>Temperature Min 70 °F, Max 86 °F; No Precipitation; 10 MPH Wind |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench and AMEC. Provided on-site QC and documentation.  
 AMEC - Provided on-site engineering services and oversight of all field QC testing.  
 Moretrench - Excavation and Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
 Contruction of Working Platform

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Initial Inspection held for DFW: Penetration of Landfill Liner

All imported borrow material used for backfill mix was visually inspected upon arrival.  
 Condition of bentonite supersacks and 50 lb bags inspected upon arrival.

Moretrench completed on-site QC testing of slurry being mixed in tanks prior to placement in trench along with on-site QC testing of slurry within the trench. Moretrech and AMEC also conducted on-site QC testing of backfill batches. Samples of backfill batches also collected for off-site QC testing. AMEC provided oversight of all Moretrench field QC testing to confirm testing was completed properly as per project specifications. Only half the required on-site QC testing performed on the slurry as excavation activities were only conducted for half a shift during the day.

On-site QC Testing Performed:

Bentonite Slurry:

|                          |                |
|--------------------------|----------------|
| Test                     | Time Conducted |
| Viscosity-Initial        | 1000           |
| Viscosity- In trench     | 0850 & 1300    |
| Density- Initial         | 1013           |
| Density- In trench       | 0854 & 1304    |
| Filtrate Loss- Initial   | 1044           |
| Filtrate Loss- In trench | 0927 & 1336    |
| pH- Initial              | 1015           |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Soil-Bentonite Backfill:

|         |                |
|---------|----------------|
| Test    | Time Conducted |
| Slump   | 1115 & 1318    |
| Density | 1119 & 1321    |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Samples collected of Soil-Bentonite Backfill for off-site analysis of Permeability, Gradation, and Materials Fines Content. AMEC completed field Materials Fines Content testing on backfill mix for batches 17 through 19. Results of Fine Content % ranged from 37% in Batch 17 to 50% in Batch 19. Average Fine Content % was 44%.

Backfill Slope soundings conducted at stations at the start and end of the work shift.  
 Current trench profile emailed under seperate cover to USACE representatives.

**CONTRACTORS QUALITY CONTROL REPORT (QCR)  
DAILY LOG OF CONSTRUCTION**

REPORT NUMBER  
854 Page 2 of 3

DATE  
31 Aug 2012 - Friday

PROJECT  
Shepley's Landfil, Devens Cutoff Wall

CONTRACT NUMBER  
W912WJ-10-D-0003 0002

**Did anything develop that may lead to a Change Order/Claim?**

No developments that may lead to a Change Oder during the day.

**Were there any Delays in Work Progress today?**

No major delays in work progress during the day.

**General Comments:**

Work Completed During the Day:

Sovereign: Provided project oversight and on-site QC of Moretrench and AMEC. Photographed progress of excavation and backfill mixing as trench advanced. Photo IDs: 083112-01 through 083112-11.

AMEC: Provided oversight of on-site QC testing performed by Moretrench and trench exvcavation activities. Also made final determination of trench depths and if refusal criteria had been met at each 10 foot station. Performed in field Materials Fine Content testing on backfill mix.

Moretrench: Continued mixing slurry and filling tanks. Continued backfill mixing with excavator. Excavation activites only conducted during first half of the work shift. Completed excavation of trench from 5+20 to 5+60. Backfilled trench with 1 1/2 batches of backfill. Backfill complete up to station 4+40. Backfill quantities summarized on Trench Profile submitted under seperate cover the USACE representatives. Performed all required on-site QC testing. General site clean-up at end of the shift.

Final Trench Depths at 10 foot stations during the day:

| Station | Final Trench Depth |
|---------|--------------------|
| 5+30    | 39.8'              |
| 5+40    | 40.0'              |
| 5+50    | 40.6'              |
| 5+60    | 40.5'              |

Materials Brought on Site:

300 cys of Imported Clay Borrow for backfill mix (W.J. Graves)

Bentonite (Hydrogel):

17 Bulk Bags

900 (50 lb) Bags

Equipment Brought on Site:

No additional equipment brought on-site during the day.

Additional Notes:

It appeared that slough occured overnight at station 4+30. Morning soundings of trench were in range and slough did not likely fall in the trench.

**Verbal Instructions given by Government:**

No verbal instruction given by the government during the day.

Marcus Madison (USACE) on site during the afternoon.

**Safety Inspection / Safety Meetings:**

Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviued prior to start of work activties.

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           | REPORT NUMBER<br>854 <span style="float: right;">Page 3 of 3</span> |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------------------------------------------|--------------------|---------------|----------------------|------------------------|--------------------|-----------|--------------------------|------|------|-----------|---------------------------|------|------|-----------|------------------|------|------|-----------|----------------------|------|------|-----------|------------------|------|------|---------------------------------------|-------------|-------------|-------|-------------------------------------|--|------------|------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           | DATE<br>31 Aug 2012 - Friday                                        |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br>No preparatory inspections were held today<br>An initial inspection was held today for the following feature:<br>Penetration of Landfill Liner                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| <b>ACTIVITY START/FINISH</b><br>No activities were started or finished today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| <b>QC REQUIREMENTS</b><br>No QC requirements were completed today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br>No QC Deficiency items were issued today<br>No Deficiency items were corrected today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br>No contractors had their first or last day on site today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| <b>LABOR HOURS</b><br>The following labor hours were Reported today: <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">4.0</td> <td style="text-align: right;">32.5</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">2.0</td> <td style="text-align: right;">16.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Sovereign</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">6.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total hours worked to date: 2,040.8</td> <td style="text-align: right; border-top: 1px solid black;">Total 10.0</td> <td style="text-align: right; border-top: 1px solid black;">78.5</td> </tr> </tbody> </table> |                           |                                                                     |                    | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 4.0  | 32.5 | Moretrech | LABORERS                  | 2.0  | 16.0 | Moretrech | PROJECT ENGINEER | 1.0  | 8.0  | Moretrech | SUPER - CONSTRUCTION | 1.0  | 8.0  | Sovereign | PROJECT ENGINEER | 1.0  | 6.0  | Sovereign                             | SUPER - JOB | 1.0         | 8.0   | Total hours worked to date: 2,040.8 |  | Total 10.0 | 78.5 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Labor Classification      | Number of<br>Employees                                              | Hours<br>Worked    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | HEAVY-EQUIPMENT OPERATOR  | 4.0                                                                 | 32.5               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | LABORERS                  | 2.0                                                                 | 16.0               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | PROJECT ENGINEER          | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | SUPER - CONSTRUCTION      | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | PROJECT ENGINEER          | 1.0                                                                 | 6.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | SUPER - JOB               | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| Total hours worked to date: 2,040.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           | Total 10.0                                                          | 78.5               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| <b>EQUIPMENT HOURS</b><br>The following equipment hours were Reported today: <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle<br/>Hours</th> <th style="text-align: right;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Exacavtor with Long Stick</td> <td style="text-align: right;">4.00</td> <td style="text-align: right;">4.50</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">3.50</td> <td style="text-align: right;">5.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">7.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">7.50</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total operating hours to date: 484.50</td> <td style="text-align: right; border-top: 1px solid black;">Total 18.00</td> <td style="text-align: right; border-top: 1px solid black;">24.50</td> </tr> </tbody> </table>                                                                                                                                                                      |                           |                                                                     |                    | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A       | Bull Dozer               | 8.50 | 0.00 | N/A       | Exacavtor with Long Stick | 4.00 | 4.50 | N/A       | Loader           | 3.50 | 5.00 | N/A       | Mixing Excavator     | 1.00 | 7.50 | N/A       | Mixing Loader    | 1.00 | 7.50 | Total operating hours to date: 484.50 |             | Total 18.00 | 24.50 |                                     |  |            |      |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Description               | Idle<br>Hours                                                       | Operating<br>Hours |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Bull Dozer                | 8.50                                                                | 0.00               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Exacavtor with Long Stick | 4.00                                                                | 4.50               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Loader                    | 3.50                                                                | 5.00               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Mixing Excavator          | 1.00                                                                | 7.50               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Mixing Loader             | 1.00                                                                | 7.50               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| Total operating hours to date: 484.50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           | Total 18.00                                                         | 24.50              |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br>No accidents reported today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | DATE                      | SUPERINTENDENT'S INITIALS                                           | DATE               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |



|                                                                                     |  |                                                                                                       |             |
|-------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |  | REPORT NUMBER<br>858                                                                                  | Page 1 of 3 |
|                                                                                     |  | DATE<br>04 Sep 2012 - Tuesday                                                                         |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |  | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                              |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             |  | WEATHER<br>Weather Caused No Delay<br>Temperature Min 65 °F, Max 78 °F; No Precipitation; 10 MPH Wind |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench and AMEC. Provided on-site QC and documentation.  
 AMEC - Provided on-site engineering services and oversight of all field QC testing.  
 Moretrench - Excavation and Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
 Contruction of Working Platform

**Quality Control Inspections and Activities (List by Feature of Work)**  
 All imported borrow for backfill mix inspected upon delivery.

Moretrench completed on-site QC testing of slurry being mixed in tanks prior to placement in trench along with on-site QC testing of slurry within the trench. Moretrech and AMEC also conducted on-site QC testing of backfill batches. Samples of backfill batches also collected for off-site QC testing. AMEC provided oversight of all Moretrench field QC testing to confirm testing was completed properly as per project specification and all results were within acceptable ranges.

Bentonite Slurry:

|                          |                   |
|--------------------------|-------------------|
| Test                     | Time Conducted    |
| Viscosity-Initial        | 1134 & 1535       |
| Viscosity- In trench     | 1100, 1350 & 1615 |
| Density- Initial         | 1138 & 1540       |
| Density- In trench       | 1104, 1353 & 1621 |
| Filtrate Loss- Initial   | 1209 & 1611       |
| Filtrate Loss- In trench | 1136, 1425 & 1652 |
| pH- Initial              | 1135 & 1537       |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Soil-Bentonite Backfill:

|         |                |
|---------|----------------|
| Test    | Time Conducted |
| Slump   | 1020 & 1549    |
| Density | 1119 & 1621    |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Samples collected of Soil-Bentonite Backfill for off-site analysis of Permeability, Gradation, and Materials Fines Content. AMEC conducted on-site Materials Fines Content for backfill batches 20 through 25. Fines Content % ranged from 38% in batch 22 to 50% in batch 21. Average Fines Content % was 46%.

Backfill Slope soundings conducted at stations at the start and end of the work shift.  
 Current trench profile emailed under seperate cover to USACE representatives.

**Did anything develop that may lead to a Change Order/Claim ?**  
 No developments that may lead to a Change Order during the day.

**Were there any Delays in Work Progress today?**

| <div> <div>CONTRACTORS QUALITY CONTROL REPORT (QCR)</div> <div>DAILY LOG OF CONSTRUCTION</div> </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                    | <div>REPORT NUMBER</div> <div>858</div>                     | <div>Page 2 of 3</div> |         |                    |      |       |      |       |      |       |      |       |      |       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-------------------------------------------------------------|------------------------|---------|--------------------|------|-------|------|-------|------|-------|------|-------|------|-------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                    | <div>DATE</div> <div>04 Sep 2012 - Tuesday</div>            |                        |         |                    |      |       |      |       |      |       |      |       |      |       |
| <div>PROJECT</div> <div>Shepley's Landfil, Devens Cutoff Wall</div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                    | <div>CONTRACT NUMBER</div> <div>W912WJ-10-D-0003 0002</div> |                        |         |                    |      |       |      |       |      |       |      |       |      |       |
| <p>No was a minor 1.5 hour delays in work progress during the day as the boom of the long-stick excavator was making inspected after making loud noises. Excavation was halted to inspect pins and bushings on the end of the stick. Only general wear detected on stick pin.</p> <p><b>General Comments:</b></p> <p>Work Completed During the Day:</p> <p>Sovereign: Provided project oversight and on-site QC of Moretrench and AMEC. Photographed progress of excavation and backfill mixing as trench advanced. Photo IDs: 090412-01 through 090412-14.</p> <p>AMEC: Geotechnical Engineer provided oversight of on-site QC testing performed by Moretrench and trench exvavation activities. Geotechnical Engineer made all final determination of trench depths and if refusal criteria had been met at each 10 foot station. Geotechnical Engineer completed on site Fine Content % of backfill mixes.</p> <p>Moretrench: Continued mixing slurry and filling tanks. Continued backfill mixing with excavator. Completed excavation of trench from 5+60 to 6+10. Backfilled trench with 1 1/2 batches of backfill. Backfill complete up to station 4+90. Backfill quantities summarized on Trench Profile submitted under seperate cover the USACE representatives. Performed all required on-site QC testing. Completed construction working platform out to station 7+40. General site clean-up at end of the shift.</p> <p>Final Trench Depths at 10 foot stations during the day:</p> <table> <tr> <th>Station</th> <th>Final Trench Depth</th> </tr> <tr> <td>5+70</td> <td>39.0'</td> </tr> <tr> <td>5+80</td> <td>39.2'</td> </tr> <tr> <td>5+90</td> <td>36.6'</td> </tr> <tr> <td>6+00</td> <td>36.6'</td> </tr> <tr> <td>6+10</td> <td>36.6'</td> </tr> </table> <p>Materials Brought on Site:</p> <p>400 cys of Imported Clay Borrow for backfill mix (W.J. Graves)</p> <p>Equipment Brought on Site:</p> <p>No additional equipment brought on-site during the day.</p> <p>Additional Notes:</p> <p>Moretrench went back and scraped bottom of trench back to bedrock from station 5+20 to 5+60 before continuing with trench excavations to station 5+70 due the fact no excavation activities occured over the long three day weekend. This was followed my morning sounding of the trench being conducted again.</p> <p>It was noted that a very limited amount of trench cuttings are being made available for use in backfill due to large amounts of trash being encounted in excavated material in stations being excavated during the day. Sovereign, AMEC, and Moretrench are scheduled to have a confernece call on the issue the morning of the following day to discuss a possible other backfill mixture using a higher percentage of the imported fines borrow in the backfill mix batches.</p> <p><b>Verbal Instructions given by Government:</b></p> <p>Randy LeCuyer and Marcus Madison (USACE Construction Representitives) on site during the morning. Conducted walk-through and inspection of the site.</p> <p>No verbal instruction given by the government during the day.</p> <p><b>Safety Inspection / Safety Meetings:</b></p> <p>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviuewed prior to start of work activties.</p> |                    |                                                             |                        | Station | Final Trench Depth | 5+70 | 39.0' | 5+80 | 39.2' | 5+90 | 36.6' | 6+00 | 36.6' | 6+10 | 36.6' |
| Station                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Final Trench Depth |                                                             |                        |         |                    |      |       |      |       |      |       |      |       |      |       |
| 5+70                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 39.0'              |                                                             |                        |         |                    |      |       |      |       |      |       |      |       |      |       |
| 5+80                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 39.2'              |                                                             |                        |         |                    |      |       |      |       |      |       |      |       |      |       |
| 5+90                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 36.6'              |                                                             |                        |         |                    |      |       |      |       |      |       |      |       |      |       |
| 6+00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 36.6'              |                                                             |                        |         |                    |      |       |      |       |      |       |      |       |      |       |
| 6+10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 36.6'              |                                                             |                        |         |                    |      |       |      |       |      |       |      |       |      |       |
| <div>PREP/INITIAL DATES</div> <div>(Preparatory and initial dates held and advance notice)</div> <div>No preparatory or initial inspections were held today</div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                    |                                                             |                        |         |                    |      |       |      |       |      |       |      |       |      |       |
| <div></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                    |                                                             |                        |         |                    |      |       |      |       |      |       |      |       |      |       |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           | REPORT NUMBER<br>858 <span style="float: right;">Page 3 of 3</span> |                           |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------------------------------------------|---------------------------|---------------|----------------------|------------------------|--------------------|-----------|--------------------------|------|------|-----------|---------------------------|------|------|-----------|------------------|------|------|-----------|----------------------|------|------|-----------|------------------|------|------|---------------------------------------|-------------|-------------|-------|-------------------------------------|--|------------|-------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           | DATE<br>04 Sep 2012 - Tuesday                                       |                           |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                            |                           |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>ACTIVITY START/FINISH</b><br>No activities were started or finished today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           |                                                                     |                           |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>QC REQUIREMENTS</b><br>No QC requirements were completed today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |                                                                     |                           |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br>No QC Deficiency items were issued today<br>No Deficiency items were corrected today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           |                                                                     |                           |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br>No contractors had their first or last day on site today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                           |                                                                     |                           |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>LABOR HOURS</b><br>The following labor hours were Reported today: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: center;">Number of<br/>Employees</th> <th style="text-align: center;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: center;">4.0</td> <td style="text-align: center;">40.5</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: center;">3.0</td> <td style="text-align: center;">30.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td style="text-align: center;">1.0</td> <td style="text-align: center;">10.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: center;">1.0</td> <td style="text-align: center;">10.0</td> </tr> <tr> <td>Sovereign</td> <td>PROJECT ENGINEER</td> <td style="text-align: center;">1.0</td> <td style="text-align: center;">10.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: center;">1.0</td> <td style="text-align: center;">10.0</td> </tr> <tr> <td colspan="2">Total hours worked to date: 2,151.3</td> <td style="text-align: center;">Total 11.0</td> <td style="text-align: center;">110.5</td> </tr> </tbody> </table> |                           |                                                                     |                           | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 4.0  | 40.5 | Moretrech | LABORERS                  | 3.0  | 30.0 | Moretrech | PROJECT ENGINEER | 1.0  | 10.0 | Moretrech | SUPER - CONSTRUCTION | 1.0  | 10.0 | Sovereign | PROJECT ENGINEER | 1.0  | 10.0 | Sovereign                             | SUPER - JOB | 1.0         | 10.0  | Total hours worked to date: 2,151.3 |  | Total 11.0 | 110.5 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Labor Classification      | Number of<br>Employees                                              | Hours<br>Worked           |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | HEAVY-EQUIPMENT OPERATOR  | 4.0                                                                 | 40.5                      |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | LABORERS                  | 3.0                                                                 | 30.0                      |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | PROJECT ENGINEER          | 1.0                                                                 | 10.0                      |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | SUPER - CONSTRUCTION      | 1.0                                                                 | 10.0                      |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | PROJECT ENGINEER          | 1.0                                                                 | 10.0                      |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | SUPER - JOB               | 1.0                                                                 | 10.0                      |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Total hours worked to date: 2,151.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           | Total 11.0                                                          | 110.5                     |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>EQUIPMENT HOURS</b><br>The following equipment hours were Reported today: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: center;">Idle<br/>Hours</th> <th style="text-align: center;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: center;">8.50</td> <td style="text-align: center;">2.00</td> </tr> <tr> <td>N/A</td> <td>Exacavtor with Long Stick</td> <td style="text-align: center;">3.50</td> <td style="text-align: center;">7.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: center;">4.00</td> <td style="text-align: center;">6.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td style="text-align: center;">1.00</td> <td style="text-align: center;">9.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td style="text-align: center;">1.00</td> <td style="text-align: center;">9.50</td> </tr> <tr> <td colspan="2">Total operating hours to date: 519.00</td> <td style="text-align: center;">Total 18.00</td> <td style="text-align: center;">34.50</td> </tr> </tbody> </table>                                                                                                                                                                             |                           |                                                                     |                           | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A       | Bull Dozer               | 8.50 | 2.00 | N/A       | Exacavtor with Long Stick | 3.50 | 7.00 | N/A       | Loader           | 4.00 | 6.50 | N/A       | Mixing Excavator     | 1.00 | 9.50 | N/A       | Mixing Loader    | 1.00 | 9.50 | Total operating hours to date: 519.00 |             | Total 18.00 | 34.50 |                                     |  |            |       |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Description               | Idle<br>Hours                                                       | Operating<br>Hours        |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Bull Dozer                | 8.50                                                                | 2.00                      |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Exacavtor with Long Stick | 3.50                                                                | 7.00                      |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Loader                    | 4.00                                                                | 6.50                      |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Mixing Excavator          | 1.00                                                                | 9.50                      |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Mixing Loader             | 1.00                                                                | 9.50                      |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Total operating hours to date: 519.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                           | Total 18.00                                                         | 34.50                     |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br>No accidents reported today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           |                                                                     |                           |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           |                                                                     |                           |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                           |                                                                     |                           |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           | DATE                                                                | SUPERINTENDENT'S INITIALS |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           |                                                                     | DATE                      |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |

|                                                                                     |  |                                                                                                            |             |
|-------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |  | REPORT NUMBER<br>859                                                                                       | Page 1 of 3 |
|                                                                                     |  | DATE<br>05 Sep 2012 - Wednesday                                                                            |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |  | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                                   |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             |  | WEATHER<br>Weather Caused No Delay<br>Temperature Min 65 °F, Max 78 °F; 0.02 IN Precipitation; 10 MPH Wind |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench and AMEC. Provided on-site QC and documentation.  
 AMEC - Provided on-site engineering services and oversight of all field QC testing.  
 Moretrench - Excavation and Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
 Contruction of Working Platform

**Quality Control Inspections and Activities (List by Feature of Work)**  
 All imported borrow for backfill mix inspected upon delivery.

Moretrench completed on-site QC testing of slurry being mixed in tanks prior to placement in trench along with on-site QC testing of slurry within the trench. Moretrech and AMEC also conducted on-site QC testing of backfill batches. Samples of backfill batches also collected for off-site QC testing. AMEC provided oversight of all Moretrench field QC testing to confirm testing was completed properly as per project specification and all results were within acceptable ranges. Limited amount of QC on slurry has excavation ativities were only conducted for a quater of a shift.

Bentonite Slurry:

|                          |                |
|--------------------------|----------------|
| Test                     | Time Conducted |
| Viscosity-Initial        | 0950           |
| Viscosity- In trench     | 1415           |
| Density- Initial         | 0954           |
| Density- In trench       | 1418           |
| Filtrate Loss- Initial   | 1027           |
| Filtrate Loss- In trench | 1450           |
| pH- Initial              | 1008           |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Soil-Bentonite Backfill:

|         |                |
|---------|----------------|
| Test    | Time Conducted |
| Slump   | 1040           |
| Density | 1119           |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Samples collected of Soil-Bentonite Backfill for off-site analysis of Permeability, Gradation, and Materials Fines Content. AMEC conducted on-site Materials Fines Content for backfill batches 26 through 28. Fines Content % ranged from 45% in batch 26 to 56% in batch 28. Average Fines Content % was 52%.

Backfill Slope soundings conducted at stations at the start and end of the work shift. Current trench profile emailed under seperate cover to USACE representatives.

**Did anything develop that may lead to a Change Order/Claim ?**  
 No developments that may lead to a Change Order during the day.

**Were there any Delays in Work Progress today?**

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                    | REPORT NUMBER<br>859                     | Page 2 of 3 |         |                    |      |       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|------------------------------------------|-------------|---------|--------------------|------|-------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                    | DATE<br>05 Sep 2012 - Wednesday          |             |         |                    |      |       |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                    | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |         |                    |      |       |
| <p>Excavation activities were only conducted for a quarter of a shift as the H-Link pin and the H-Link itself was it need of replacing on the long-stick of 374 excavator. Parts to arrive the next morning at 0700 to make all needed repairs. Moretrench completed the remainder of the working platform construction during the down excavation time.</p> <p><b>General Comments:</b><br/> Work Completed During the Day:</p> <p>Sovereign: Provided project oversight and on-site QC of Moretrench and AMEC.</p> <p>AMEC: Geotechnical Engineer provided oversight of on-site QC testing performed by Moretrench and trench exvavation activities. Geotechnical Engineer made all final determination of trench depths and if refusal criteria had been met at each 10 foot station. Geotechnical Engineer completed on site Fine Content % of backfill mixes.</p> <p>Moretrench: Continued mixing slurry and filling tanks. Continued backfill mixing with excavator. Completed excavation of trench from 6+10 to 6+20. Backfilled trench with a 1/2 batche of backfill. Backfill complete up to station 5+00. Backfill quantities summarized on Trench Profile submitted under seperate cover the USACE representatives. Performed all required on-site QC testing. Completed the remainder of the construction of working platform. General site clean-up at end of the shift.</p> <p>Final Trench Depths at 10 foot stations during the day:</p> <table border="1"> <thead> <tr> <th>Station</th><th>Final Trench Depth</th></tr> </thead> <tbody> <tr> <td>6+20</td><td>38.4'</td></tr> </tbody> </table> <p>Materials Brought on Site:</p> <p>No additional material brought on-site during the day.</p> <p>Equipment Brought on Site:</p> <p>No additional equipment brought on-site during the day.</p> <p>Additional Notes:</p> <p>It was noted that a very limited amount of trench cuttings were being made available for use in backfill due to large amounts of trash being encountered in excavated material in stations being excavated the last few days. Sovereign, AMEC, and Moretrench condcuted a confernece call on the issue. It was determined to use a 75 % imported fines to 25% trench cuttings backfill mix. A sample was taken of this mixutre in afternoon and sent to the lab for a rush turn on permeability analysis.</p> <p><b>Verbal Instructions given by Government:</b><br/> Randy LeCuyer, Marcus Madison (USACE Construction Representitives), and Zach Mothersed (Project Eng.) on site during the morning. Conducted walk-through and inspection of the site.</p> <p>No verbal instruction given by the government during the day.</p> <p><b>Safety Inspection / Safety Meetings:</b><br/> Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviuewed prior to start of work activties.</p> |                    |                                          |             | Station | Final Trench Depth | 6+20 | 38.4' |
| Station                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Final Trench Depth |                                          |             |         |                    |      |       |
| 6+20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 38.4'              |                                          |             |         |                    |      |       |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    |                                          |             |         |                    |      |       |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                    |                                          |             |         |                    |      |       |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                    |                                          |             |         |                    |      |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                    |                                          |             |         |                    |      |       |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           | REPORT NUMBER<br>859                     |                           | Page 3 of 3 |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |  |  |  |      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|------------------------------------------|---------------------------|-------------|---------------|----------------------|---------------------|-----------------|-----------|--------------------------|------|------|-----------|---------------------------|------|------|-----------|------------------|------|------|-----------|----------------------|------|------|-----------|------------------|------|------|---------------------------------------|-------------|-------|-------|-------------------------------------|--|-------|-------|--|--|--|------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           | DATE<br>05 Sep 2012 - Wednesday          |                           |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |  |  |  |      |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |                           |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |  |  |  |      |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br>No QC Deficiency items were issued today<br>No Deficiency items were corrected today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |  |  |  |      |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br>No contractors had their first or last day on site today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |  |  |  |      |
| <b>LABOR HOURS</b><br>The following labor hours were Reported today: <table border="1"> <thead> <tr> <th>Employer</th> <th>Labor Classification</th> <th>Number of Employees</th> <th>Hours Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td>4.0</td> <td>32.5</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td>2.0</td> <td>16.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td>Sovereign</td> <td>PROJECT ENGINEER</td> <td>1.0</td> <td>7.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td colspan="2">Total hours worked to date: 2,230.8</td> <td>Total</td> <td>10.0</td> </tr> <tr> <td colspan="2"></td> <td></td> <td>79.5</td> </tr> </tbody> </table> |                           |                                          |                           |             | Employer      | Labor Classification | Number of Employees | Hours Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 4.0  | 32.5 | Moretrech | LABORERS                  | 2.0  | 16.0 | Moretrech | PROJECT ENGINEER | 1.0  | 8.0  | Moretrech | SUPER - CONSTRUCTION | 1.0  | 8.0  | Sovereign | PROJECT ENGINEER | 1.0  | 7.0  | Sovereign                             | SUPER - JOB | 1.0   | 8.0   | Total hours worked to date: 2,230.8 |  | Total | 10.0  |  |  |  | 79.5 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Labor Classification      | Number of Employees                      | Hours Worked              |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |  |  |  |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | HEAVY-EQUIPMENT OPERATOR  | 4.0                                      | 32.5                      |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |  |  |  |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | LABORERS                  | 2.0                                      | 16.0                      |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |  |  |  |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | PROJECT ENGINEER          | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |  |  |  |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | SUPER - CONSTRUCTION      | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |  |  |  |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | PROJECT ENGINEER          | 1.0                                      | 7.0                       |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |  |  |  |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | SUPER - JOB               | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |  |  |  |      |
| Total hours worked to date: 2,230.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           | Total                                    | 10.0                      |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |  |  |  |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           |                                          | 79.5                      |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |  |  |  |      |
| <b>EQUIPMENT HOURS</b><br>The following equipment hours were Reported today: <table border="1"> <thead> <tr> <th>Serial Number</th> <th>Description</th> <th>Idle Hours</th> <th>Operating Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td>5.00</td> <td>3.50</td> </tr> <tr> <td>N/A</td> <td>Exacavtor with Long Stick</td> <td>5.50</td> <td>3.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td>3.50</td> <td>5.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td>1.00</td> <td>7.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td>1.00</td> <td>7.50</td> </tr> <tr> <td colspan="2">Total operating hours to date: 545.50</td> <td>Total</td> <td>16.00</td> </tr> <tr> <td colspan="2"></td> <td></td> <td>26.50</td> </tr> </tbody> </table>                                                                                                                |                           |                                          |                           |             | Serial Number | Description          | Idle Hours          | Operating Hours | N/A       | Bull Dozer               | 5.00 | 3.50 | N/A       | Exacavtor with Long Stick | 5.50 | 3.00 | N/A       | Loader           | 3.50 | 5.00 | N/A       | Mixing Excavator     | 1.00 | 7.50 | N/A       | Mixing Loader    | 1.00 | 7.50 | Total operating hours to date: 545.50 |             | Total | 16.00 |                                     |  |       | 26.50 |  |  |  |      |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Description               | Idle Hours                               | Operating Hours           |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |  |  |  |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Bull Dozer                | 5.00                                     | 3.50                      |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |  |  |  |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Exacavtor with Long Stick | 5.50                                     | 3.00                      |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |  |  |  |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Loader                    | 3.50                                     | 5.00                      |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |  |  |  |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Mixing Excavator          | 1.00                                     | 7.50                      |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |  |  |  |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Mixing Loader             | 1.00                                     | 7.50                      |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |  |  |  |      |
| Total operating hours to date: 545.50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           | Total                                    | 16.00                     |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |  |  |  |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           |                                          | 26.50                     |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |  |  |  |      |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br>No accidents reported today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |  |  |  |      |
| <div style="height: 200px;"></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |  |  |  |      |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |  |  |  |      |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           | DATE                                     | SUPERINTENDENT'S INITIALS |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |  |  |  |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |  |  |  |      |

|                                                                                     |                                                                                                      |                                          |             |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |                                                                                                      | REPORT NUMBER<br>860                     | Page 1 of 3 |
|                                                                                     |                                                                                                      | DATE<br>06 Sep 2012 - Thursday           |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |                                                                                                      | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             | WEATHER<br>Weather Caused No Delay<br>Temperature Min 68 °F, Max 83 °F; No Precipitation; 5 MPH Wind |                                          |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench and AMEC. Provided on-site QC and documentation.  
 AMEC - Provided on-site engineering services and oversight of all field QC testing.  
 Moretrench - Excavation and Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
 Penetration of Landfill Liner

**Quality Control Inspections and Activities (List by Feature of Work)**  
 All imported borrow for backfill mix inspected upon delivery.

Moretrench completed on-site QC testing of slurry being mixed in tanks prior to placement in trench along with on-site QC testing of slurry within the trench. Moretrech and AMEC also conducted on-site QC testing of backfill batches. Samples of backfill batches also collected for off-site QC testing. AMEC provided oversight of all Moretrench field QC testing to confirm testing was completed properly as per project specification and all results were within acceptable ranges.

Bentonite Slurry:

|                          |                   |
|--------------------------|-------------------|
| Test                     | Time Conducted    |
| Viscosity-Initial        | 0850 & 1400       |
| Viscosity- In trench     | 1020, 1236 & 1500 |
| Density- Initial         | 0854 & 1406       |
| Density- In trench       | 1023, 1240 & 1510 |
| Filtrate Loss- Initial   | 0927 & 1438       |
| Filtrate Loss- In trench | 1054, 1311 & 1542 |
| pH- Initial              | 0856 & 1404       |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Soil-Bentonite Backfill:

|         |                |
|---------|----------------|
| Test    | Time Conducted |
| Slump   | 1100 & 1300    |
| Density | 1119 & 1315    |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Samples collected of Soil-Bentonite Backfill for off-site analysis of Permeability, Gradation, and Materials Fines Content. AMEC conducted on-site Materials Fines Content for backfill batch 28 (75/25 mixutre of Fines/Trench Cuttings). Fines Content % of batch 28 was 61%.

Backfill Slope soundings conducted at stations at the start and end of the work shift.  
 Current trench profile emailed under seperate cover to USACE representatives.

**Did anything develop that may lead to a Change Order/Claim ?**  
 No developments that may lead to a Change Order during the day.

**Were there any Delays in Work Progress today?**

| <div> <div> CONTRACTORS QUALITY CONTROL REPORT (QCR) DAILY LOG OF CONSTRUCTION </div> </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                    | <div> REPORT NUMBER<br/>860 </div> <div> Page 2 of 3 </div>                                         |         |                    |      |       |      |       |      |       |      |       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-----------------------------------------------------------------------------------------------------|---------|--------------------|------|-------|------|-------|------|-------|------|-------|
| <div> PROJECT<br/>Shepley's Landfil, Devens Cutoff Wall </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                    | <div> DATE<br/>06 Sep 2012 - Thursday </div> <div> CONTRACT NUMBER<br/>W912WJ-10-D-0003 0002 </div> |         |                    |      |       |      |       |      |       |      |       |
| <div> <p>Minor delays in work progress during the day as mechanical problems with the boom and long-stick of the 374 excavator were encountered. Did not start excavation activities in the morning untill 0900 as a new H-Link and Pin were installed.</p> <p>Excavation activties were ceased at 1530 as it was determined the bushing in the stick were crushed. New parts to arrive the next morning at 0700.</p> <p><b>General Comments:</b></p> <p>Work Completed During the Day:</p> <p>Sovereign: Provided project oversight and on-site QC of Moretrench and AMEC. Photographed progress of excavation and backfill mixing as trench advanced. Photo IDs: 090612-01 through 090612-04.</p> <p>AMEC: Principal Geotechnical Engineer provided oversight of on-site QC testing performed by Moretrench and trench exvcavation activities. Principal Geotechnical Engineer made all final determination of trench depths and if refusal criteria had been met at each 10 foot station. Principal Geotechnical Engineer completed on site Fine Content % of backfill mixes.</p> <p>Moretrench: Continued mixing slurry and filling tanks. Continued backfill mixing with excavator. Completed excavation of trench from 6+20 to 6+60. Backfilled trench with 1 1/2 batches of backfill. Backfill complete up to station 5+40. Backfill quantities summarized on Trench Profile submitted under seperate cover the USACE representatives. Performed all required on-site QC testing. General site clean-up at end of the shift.</p> <p>Final Trench Depths at 10 foot stations during the day:</p> <table> <tr> <th>Station</th> <th>Final Trench Depth</th> </tr> <tr> <td>6+30</td> <td>38.5'</td> </tr> <tr> <td>6+40</td> <td>40.2'</td> </tr> <tr> <td>6+50</td> <td>40.6'</td> </tr> <tr> <td>6+60</td> <td>39.5'</td> </tr> </table> <p>Materials Brought on Site:</p> <p>25 cys of Imported Clay Borrow for backfill mix (W.J. Graves)</p> <p>Equipment Brought on Site:</p> <p>No additional equipment brought on-site during the day.</p> <p>Additional Notes:</p> <p>Bill Brandon (US EPA) on site during the day. Given periodic status updates by Sovereign and AMEC Principal Engineer. No major comments or concerns noted from EPA representative.</p> <p>Backfill mixes are now being mixed with 75% Imported Fines and 25% Trench cuttings. New mixes started around station 5+10.</p> <p><b>Verbal Instructions given by Government:</b></p> <p>Randy Lecuyer and Marcus Madison (USACE Construction Representative) on site during the morning. Conducted walk-through and inspection of the site.</p> <p>No verbal instruction given by the government during the day.</p> <p><b>Safety Inspection / Safety Meetings:</b></p> <p>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviewed prior to start of work activties.</p> </div> |                    |                                                                                                     | Station | Final Trench Depth | 6+30 | 38.5' | 6+40 | 40.2' | 6+50 | 40.6' | 6+60 | 39.5' |
| Station                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Final Trench Depth |                                                                                                     |         |                    |      |       |      |       |      |       |      |       |
| 6+30                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 38.5'              |                                                                                                     |         |                    |      |       |      |       |      |       |      |       |
| 6+40                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 40.2'              |                                                                                                     |         |                    |      |       |      |       |      |       |      |       |
| 6+50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 40.6'              |                                                                                                     |         |                    |      |       |      |       |      |       |      |       |
| 6+60                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 39.5'              |                                                                                                     |         |                    |      |       |      |       |      |       |      |       |
| <div> <div> PREP/INITIAL DATES (Preparatory and initial dates held and advance notice) </div> <div> No preparatory or initial inspections were held today </div> </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                    |                                                                                                     |         |                    |      |       |      |       |      |       |      |       |



| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           | REPORT NUMBER<br>860 <span style="float: right;">Page 3 of 3</span> |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------------------------------------------|--------------------|---------------|----------------------|------------------------|--------------------|-----------|--------------------------|-------|------|-----------|---------------------------|------|------|-----------|------------------|------|------|-----------|----------------------|------|------|-----------|------------------|------|------|---------------------------------------|-------------|-------------|-------|-------------------------------------|--|------------|-------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                           | DATE<br>06 Sep 2012 - Thursday                                      |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>ACTIVITY START/FINISH</b><br>No activities were started or finished today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>QC REQUIREMENTS</b><br>No QC requirements were completed today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br>No QC Deficiency items were issued today<br>No Deficiency items were corrected today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br>No contractors had their first or last day on site today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>LABOR HOURS</b><br>The following labor hours were Reported today: <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">4.0</td> <td style="text-align: right;">40.5</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">3.0</td> <td style="text-align: right;">30.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td>Sovereign</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total hours worked to date: 2,341.3</td> <td style="text-align: right; border-top: 1px solid black;">Total 11.0</td> <td style="text-align: right; border-top: 1px solid black;">110.5</td> </tr> </tbody> </table> |                           |                                                                     |                    | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 4.0   | 40.5 | Moretrech | LABORERS                  | 3.0  | 30.0 | Moretrech | PROJECT ENGINEER | 1.0  | 10.0 | Moretrech | SUPER - CONSTRUCTION | 1.0  | 10.0 | Sovereign | PROJECT ENGINEER | 1.0  | 10.0 | Sovereign                             | SUPER - JOB | 1.0         | 10.0  | Total hours worked to date: 2,341.3 |  | Total 11.0 | 110.5 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Labor Classification      | Number of<br>Employees                                              | Hours<br>Worked    |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | HEAVY-EQUIPMENT OPERATOR  | 4.0                                                                 | 40.5               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | LABORERS                  | 3.0                                                                 | 30.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | PROJECT ENGINEER          | 1.0                                                                 | 10.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | SUPER - CONSTRUCTION      | 1.0                                                                 | 10.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | PROJECT ENGINEER          | 1.0                                                                 | 10.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | SUPER - JOB               | 1.0                                                                 | 10.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Total hours worked to date: 2,341.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           | Total 11.0                                                          | 110.5              |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>EQUIPMENT HOURS</b><br>The following equipment hours were Reported today: <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle<br/>Hours</th> <th style="text-align: right;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">10.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Exacavtor with Long Stick</td> <td style="text-align: right;">5.00</td> <td style="text-align: right;">5.50</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">4.00</td> <td style="text-align: right;">6.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">9.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">9.50</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total operating hours to date: 576.50</td> <td style="text-align: right; border-top: 1px solid black;">Total 21.50</td> <td style="text-align: right; border-top: 1px solid black;">31.00</td> </tr> </tbody> </table>                                                                                                                                                                          |                           |                                                                     |                    | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A       | Bull Dozer               | 10.50 | 0.00 | N/A       | Exacavtor with Long Stick | 5.00 | 5.50 | N/A       | Loader           | 4.00 | 6.50 | N/A       | Mixing Excavator     | 1.00 | 9.50 | N/A       | Mixing Loader    | 1.00 | 9.50 | Total operating hours to date: 576.50 |             | Total 21.50 | 31.00 |                                     |  |            |       |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Description               | Idle<br>Hours                                                       | Operating<br>Hours |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Bull Dozer                | 10.50                                                               | 0.00               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Exacavtor with Long Stick | 5.00                                                                | 5.50               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Loader                    | 4.00                                                                | 6.50               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Mixing Excavator          | 1.00                                                                | 9.50               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Mixing Loader             | 1.00                                                                | 9.50               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Total operating hours to date: 576.50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           | Total 21.50                                                         | 31.00              |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br>No accidents reported today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | DATE                      | SUPERINTENDENT'S INITIALS                                           | DATE               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |

|                                                                                     |                                                                                                      |                                          |             |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |                                                                                                      | REPORT NUMBER<br>861                     | Page 1 of 3 |
|                                                                                     |                                                                                                      | DATE<br>07 Sep 2012 - Friday             |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |                                                                                                      | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             | WEATHER<br>Weather Caused No Delay<br>Temperature Min 72 °F, Max 85 °F; No Precipitation; 5 MPH Wind |                                          |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench and AMEC. Provided on-site QC and documentation.  
 AMEC - Provided on-site engineering services and oversight of all field QC testing.  
 Moretrench - Excavation and Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
 Penetration of Landfill Liner

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Follow-up Inspection conducted for DFW: Construction of Working Platform.

All imported borrow for backfill mix inspected upon delivery.

Moretrench completed on-site QC testing of slurry being mixed in tanks prior to placement in trench along with on-site QC testing of slurry within the trench. Moretrech and AMEC also conducted on-site QC testing of backfill batches. Samples of backfill batches also collected for off-site QC testing. AMEC provided oversight of all Moretrench field QC testing to confirm testing was completed properly as per project specification and all results were within acceptable ranges. Limited amount of on-site QC testing conducted as excavation activities were only conducted for half a shift.

Bentonite Slurry:

|                          |                |
|--------------------------|----------------|
| Test                     | Time Conducted |
| Viscosity-Initial        | 1126           |
| Viscosity- In trench     | 1240 & 1430    |
| Density- Initial         | 1130           |
| Density- In trench       | 1245 & 1434    |
| Filtrate Loss- Initial   | 1200           |
| Filtrate Loss- In trench | 1316 & 1504    |
| pH- Initial              | 1134           |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Soil-Bentonite Backfill:

|         |                |
|---------|----------------|
| Test    | Time Conducted |
| Slump   | 1300 & 1330    |
| Density | 1310 & 1345    |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Samples collected of Soil-Bentonite Backfill for off-site analysis of Permeability, Gradation, and Materials Fines Content. AMEC conducted on-site Materials Fines Content for backfill batch 29. Fines Content % of batch 29 was 51%.

Backfill Slope soundings conducted at stations at the start and end of the work shift.  
 Current trench profile emailed under seperate cover to USACE representatives.

**Did anything develop that may lead to a Change Order/Claim ?**  
 No developments that may lead to a Change Order during the day.

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                    | REPORT NUMBER<br>861                     | Page 2 of 3 |         |                    |      |       |      |       |      |       |      |       |      |       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|------------------------------------------|-------------|---------|--------------------|------|-------|------|-------|------|-------|------|-------|------|-------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                    | DATE<br>07 Sep 2012 - Friday             |             |         |                    |      |       |      |       |      |       |      |       |      |       |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                    | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |         |                    |      |       |      |       |      |       |      |       |      |       |
| <p><b>Were there any Delays in Work Progress today?</b><br/>         Minor delays in work progress during the day. Excavation activities did not start until 1000 as a new bushings were installed the bottom of the 374 excavator long-stick.</p> <p><b>General Comments:</b><br/>         Work Completed During the Day:</p> <p>Sovereign: Provided project oversight and on-site QC of Moretrench and AMEC. Photographed progress of excavation and backfill mixing as trench advanced. Photo IDs: 090712-01 through 090712-05.</p> <p>AMEC: Principal Geotechnical Engineer provided oversight of on-site QC testing performed by Moretrench and trench exxcavation activities. Principal Geotechnical Engineer made all final determination of trench depths and if refusal criteria had been met at each 10 foot station. Principal Geotechnical Engineer completed on site Fine Content % of backfill mixes.</p> <p>Moretrench: Continued mixing slurry and filling tanks. Continued backfill mixing with excavator. Completed excavation of trench from 6+60 to 7+10. Backfilled trench with 1 1/2 batches of backfill. Backfill complete up to station 5+80. Backfill quantities summarized on Trench Profile submitted under seperate cover the USACE representatives. Performed all required on-site QC testing. General site clean-up at end of the shift.</p> <p>Final Trench Depths at 10 foot stations during the day:</p> <table border="1"> <thead> <tr> <th>Station</th> <th>Final Trench Depth</th> </tr> </thead> <tbody> <tr> <td>6+70</td> <td>45.8'</td> </tr> <tr> <td>6+80</td> <td>45.2'</td> </tr> <tr> <td>6+90</td> <td>44.4'</td> </tr> <tr> <td>7+00</td> <td>44.0'</td> </tr> <tr> <td>7+10</td> <td>43.0'</td> </tr> </tbody> </table> <p>Materials Brought on Site:</p> <p>350 cys of Imported Clay Borrow for backfill mix (W.J. Graves)</p> <p>Equipment Brought on Site:</p> <p>No additional equipment brought on-site during the day.</p> <p>Additional Notes:</p> <p>Bill Brandon (US EPA) on site during in the late afternoon. Given project status update by Sovereign and AMEC Principal Engineer. No major comments or concerns noted from EPA representative.</p> <p><b>Verbal Instructions given by Government:</b><br/>         Randy Lecuyer and Marcus Madison (USACE Construction Representative) on site during the morning. Conducted walk-through and inspection of the site.</p> <p>No verbal instructions given by the government during the day.</p> <p><b>Safety Inspection / Safety Meetings:</b><br/>         Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviued prior to start of work activties.</p> |                    |                                          |             | Station | Final Trench Depth | 6+70 | 45.8' | 6+80 | 45.2' | 6+90 | 44.4' | 7+00 | 44.0' | 7+10 | 43.0' |
| Station                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Final Trench Depth |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |
| 6+70                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 45.8'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |
| 6+80                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 45.2'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |
| 6+90                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 44.4'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |
| 7+00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 44.0'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |
| 7+10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 43.0'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |
| Empty space for additional notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |

|                                                                                                                                                                                                                                                                                                                       |                           |                                                                     |                    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------------------------------------------|--------------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                   |                           | REPORT NUMBER<br>861 <span style="float: right;">Page 3 of 3</span> |                    |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                      |                           | DATE<br>07 Sep 2012 - Friday                                        |                    |
| CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                                                                                                                                                                                                                                              |                           |                                                                     |                    |
| <b>QC REQUIREMENTS</b><br>No QC requirements were completed today                                                                                                                                                                                                                                                     |                           |                                                                     |                    |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br>No QC Deficiency items were issued today<br>No Deficiency items were corrected today                                                                                                                    |                           |                                                                     |                    |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br>No contractors had their first or last day on site today                                                                                                                                                                        |                           |                                                                     |                    |
| <b>LABOR HOURS</b><br>The following labor hours were Reported today:                                                                                                                                                                                                                                                  |                           |                                                                     |                    |
| Employer                                                                                                                                                                                                                                                                                                              | Labor Classification      | Number of<br>Employees                                              | Hours<br>Worked    |
| Moretrech                                                                                                                                                                                                                                                                                                             | HEAVY-EQUIPMENT OPERATOR  | 4.0                                                                 | 40.5               |
| Moretrech                                                                                                                                                                                                                                                                                                             | LABORERS                  | 3.0                                                                 | 30.0               |
| Moretrech                                                                                                                                                                                                                                                                                                             | PROJECT ENGINEER          | 1.0                                                                 | 10.0               |
| Moretrech                                                                                                                                                                                                                                                                                                             | SUPER - CONSTRUCTION      | 1.0                                                                 | 10.0               |
| Sovereign                                                                                                                                                                                                                                                                                                             | PROJECT ENGINEER          | 1.0                                                                 | 10.0               |
| Sovereign                                                                                                                                                                                                                                                                                                             | SUPER - JOB               | 1.0                                                                 | 10.0               |
| Total hours worked to date: 2,451.8                                                                                                                                                                                                                                                                                   |                           | Total 11.0                                                          | 110.5              |
| <b>EQUIPMENT HOURS</b><br>The following equipment hours were Reported today:                                                                                                                                                                                                                                          |                           |                                                                     |                    |
| Serial Number                                                                                                                                                                                                                                                                                                         | Description               | Idle<br>Hours                                                       | Operating<br>Hours |
| N/A                                                                                                                                                                                                                                                                                                                   | Bull Dozer                | 10.50                                                               | 0.00               |
| N/A                                                                                                                                                                                                                                                                                                                   | Exacavtor with Long Stick | 3.50                                                                | 7.00               |
| N/A                                                                                                                                                                                                                                                                                                                   | Loader                    | 4.00                                                                | 6.50               |
| N/A                                                                                                                                                                                                                                                                                                                   | Mixing Excavator          | 1.00                                                                | 9.50               |
| N/A                                                                                                                                                                                                                                                                                                                   | Mixing Loader             | 1.00                                                                | 9.50               |
| Total operating hours to date: 609.00                                                                                                                                                                                                                                                                                 |                           | Total 20.00                                                         | 32.50              |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br>No accidents reported today                                                                                                                                                                                                                                         |                           |                                                                     |                    |
|                                                                                                                                                                                                                                                                                                                       |                           |                                                                     |                    |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above. |                           |                                                                     |                    |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                         | DATE                      | SUPERINTENDENT'S INITIALS                                           | DATE               |

|                                                                                     |                                                                                                         |                                          |             |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |                                                                                                         | REPORT NUMBER<br>864                     | Page 1 of 3 |
|                                                                                     |                                                                                                         | DATE<br>10 Sep 2012 - Monday             |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |                                                                                                         | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             | WEATHER<br>Weather Caused No Delay<br>Temperature Min 60 °F, Max 0 °F; 73 IN Precipitation; 10 MPH Wind |                                          |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench and AMEC. Provided on-site QC and documentation.  
 AMEC - Provided on-site engineering services and oversight of all field QC testing.  
 Moretrench - Excavation and Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
 Penetration of Landfill Liner

**Quality Control Inspections and Activities (List by Feature of Work)**  
 All imported borrow for backfill mix inspected upon delivery.

Moretrench completed on-site QC testing of slurry being mixed in tanks prior to placement in trench along with on-site QC testing of slurry within the trench. Moretrech and AMEC also conducted on-site QC testing of backfill batches. Samples of backfill batches also collected for off-site QC testing. AMEC provided oversight of all Moretrench field QC testing to confirm testing was completed properly as per project specification and all results were within acceptable ranges.  
 Bentonite Slurry:

|                          |                   |
|--------------------------|-------------------|
| Test                     | Time Conducted    |
| Viscosity-Initial        | 0955 & 135        |
| Viscosity- In trench     | 1030, 1205 & 1410 |
| Density- Initial         | 1000 & 1338       |
| Density- In trench       | 1034, 1215 & 1416 |
| Filtrate Loss- Initial   | 1034 & 1408       |
| Filtrate Loss- In trench | 1105, 1243 & 1449 |
| pH- Initial              | 1002 & 1345       |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Soil-Bentonite Backfill:

|         |                   |
|---------|-------------------|
| Test    | Time Conducted    |
| Slump   | 1100, 1313 & 1512 |
| Density | 1114, 1345 & 1532 |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Samples collected of Soil-Bentonite Backfill for off-site analysis of Permeability, Gradation, and Materials Fines Content.

Backfill Slope soundings conducted at stations at the start and end of the work shift.  
 Current trench profile emailed under seperate cover to USACE representatives.

**Did anything develop that may lead to a Change Order/Claim ?**  
 No developments that may lead to a Change Order during the day.

**Were there any Delays in Work Progress today?**  
 Minor delays in work progress during the day. Excavation activities did not ceased at 1630 to inspect top bin of stick cylinder of the 374 excavator. Bushings seem to be worn and may be repalced the following morning.

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                    | REPORT NUMBER<br>864                     | Page 2 of 3 |         |                    |      |       |      |       |      |       |      |       |      |       |      |      |      |      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|------------------------------------------|-------------|---------|--------------------|------|-------|------|-------|------|-------|------|-------|------|-------|------|------|------|------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                    | DATE<br>10 Sep 2012 - Monday             |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |      |      |      |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                    | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |      |      |      |
| <p><b>General Comments:</b></p> <p>Work Completed During the Day:</p> <p>Sovereign: Provided project oversight and on-site QC of Moretrench and AMEC. Photographed progress of excavation and backfill mixing as trench advanced. Photo IDs: 091012-01 through 091012-05.</p> <p>AMEC: Geotechnical Engineer provided oversight of on-site QC testing performed by Moretrench and trench exvcavation activities. Geotechnical Engineer made all final determination of trench depths and if refusal criteria had been met at each 10 foot station. Geotechnical Engineer completed on site Fine Content % of backfill mixes.</p> <p>Moretrench: Continued mixing slurry and filling tanks. Continued backfill mixing with excavator. Completed excavation of trench from 7+10 to 7+80. Backfilled trench with 3 1/2 batches of backfill. Backfill complete up to station 6+60. Backfill quantities summarized on Trench Profile submitted under seperate cover the USACE representatives. Performed all required on-site QC testing. General site clean-up at end of the shift.</p> <p>Final Trench Depths at 10 foot stations during the day:</p> <table border="1"> <thead> <tr> <th>Station</th> <th>Final Trench Depth</th> </tr> </thead> <tbody> <tr><td>7+20</td><td>43.2'</td></tr> <tr><td>7+30</td><td>39.1'</td></tr> <tr><td>7+40</td><td>38.7'</td></tr> <tr><td>7+50</td><td>38.8'</td></tr> <tr><td>7+60</td><td>38.0'</td></tr> <tr><td>7+70</td><td>38.0</td></tr> <tr><td>7+80</td><td>38.9</td></tr> </tbody> </table> <p>Materials Brought on Site:</p> <p>175 cys of Imported Clay Borrow for backfill mix (W.J. Graves)</p> <p>Equipment Brought on Site:</p> <p>No additional equipment brought on-site during the day.</p> <p><b>Verbal Instructions given by Government:</b></p> <p>Marcus Madison (USACE Construction Representative), Zach Mothershed (USACE Project Eng.) and Christine Johnson (USACE Construction Department) on site during the day. Conducted walk-through and inspection of the site.</p> <p>No verbal instructions given by the government during the day.</p> <p><b>Safety Inspection / Safety Meetings:</b></p> <p>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviued prior to start of work activties.</p> |                    |                                          |             | Station | Final Trench Depth | 7+20 | 43.2' | 7+30 | 39.1' | 7+40 | 38.7' | 7+50 | 38.8' | 7+60 | 38.0' | 7+70 | 38.0 | 7+80 | 38.9 |
| Station                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Final Trench Depth |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |      |      |      |
| 7+20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 43.2'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |      |      |      |
| 7+30                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 39.1'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |      |      |      |
| 7+40                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 38.7'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |      |      |      |
| 7+50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 38.8'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |      |      |      |
| 7+60                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 38.0'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |      |      |      |
| 7+70                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 38.0               |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |      |      |      |
| 7+80                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 38.9               |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |      |      |      |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |      |      |      |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |      |      |      |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |      |      |      |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |      |      |      |
| Empty space for additional notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |      |      |      |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           | REPORT NUMBER<br>864 <span style="float: right;">Page 3 of 3</span> |                                   |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------------------------------------------|-----------------------------------|---------------|----------------------|------------------------|--------------------|-----------|--------------------------|-------|------|-----------|---------------------------|------|------|-----------|------------------|------|------|-----------|----------------------|------|------|-----------|------------------|------|------|---------------------------------------|-------------|-------------|-------|-------------------------------------|--|------------|-------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           | DATE<br>10 Sep 2012 - Monday                                        |                                   |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                           | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                            |                                   |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                           |                                                                     |                                   |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">4.0</td> <td style="text-align: right;">40.5</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">3.0</td> <td style="text-align: right;">30.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td>Sovereign</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td colspan="2">Total hours worked to date: 2,562.3</td> <td style="text-align: right;">Total 11.0</td> <td style="text-align: right;">110.5</td> </tr> </tbody> </table> |                           |                                                                     |                                   | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 4.0   | 40.5 | Moretrech | LABORERS                  | 3.0  | 30.0 | Moretrech | PROJECT ENGINEER | 1.0  | 10.0 | Moretrech | SUPER - CONSTRUCTION | 1.0  | 10.0 | Sovereign | PROJECT ENGINEER | 1.0  | 10.0 | Sovereign                             | SUPER - JOB | 1.0         | 10.0  | Total hours worked to date: 2,562.3 |  | Total 11.0 | 110.5 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Labor Classification      | Number of<br>Employees                                              | Hours<br>Worked                   |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | HEAVY-EQUIPMENT OPERATOR  | 4.0                                                                 | 40.5                              |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | LABORERS                  | 3.0                                                                 | 30.0                              |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | PROJECT ENGINEER          | 1.0                                                                 | 10.0                              |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | SUPER - CONSTRUCTION      | 1.0                                                                 | 10.0                              |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | PROJECT ENGINEER          | 1.0                                                                 | 10.0                              |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | SUPER - JOB               | 1.0                                                                 | 10.0                              |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Total hours worked to date: 2,562.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           | Total 11.0                                                          | 110.5                             |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>EQUIPMENT HOURS</b><br><b>The following equipment hours were Reported today:</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle<br/>Hours</th> <th style="text-align: right;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">10.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Exacavtor with Long Stick</td> <td style="text-align: right;">3.50</td> <td style="text-align: right;">7.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">4.00</td> <td style="text-align: right;">6.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">9.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">9.50</td> </tr> <tr> <td colspan="2">Total operating hours to date: 641.50</td> <td style="text-align: right;">Total 20.00</td> <td style="text-align: right;">32.50</td> </tr> </tbody> </table>                                                                                                                                                                          |                           |                                                                     |                                   | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A       | Bull Dozer               | 10.50 | 0.00 | N/A       | Exacavtor with Long Stick | 3.50 | 7.00 | N/A       | Loader           | 4.00 | 6.50 | N/A       | Mixing Excavator     | 1.00 | 9.50 | N/A       | Mixing Loader    | 1.00 | 9.50 | Total operating hours to date: 641.50 |             | Total 20.00 | 32.50 |                                     |  |            |       |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Description               | Idle<br>Hours                                                       | Operating<br>Hours                |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Bull Dozer                | 10.50                                                               | 0.00                              |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Exacavtor with Long Stick | 3.50                                                                | 7.00                              |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Loader                    | 4.00                                                                | 6.50                              |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Mixing Excavator          | 1.00                                                                | 9.50                              |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Mixing Loader             | 1.00                                                                | 9.50                              |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Total operating hours to date: 641.50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                           | Total 20.00                                                         | 32.50                             |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           |                                                                     |                                   |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           |                                                                     |                                   |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| CONTRACTOR CERTIFICATION <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                           |                                                                     |                                   |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           | DATE                                                                | SUPERINTENDENT'S INITIALS<br>DATE |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |

|                                                                                     |                                                                                                       |                                          |             |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |                                                                                                       | REPORT NUMBER<br>865                     | Page 1 of 3 |
|                                                                                     |                                                                                                       | DATE<br>11 Sep 2012 - Tuesday            |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |                                                                                                       | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             | WEATHER<br>Weather Caused No Delay<br>Temperature Min 58 °F, Max 74 °F; No Precipitation; 10 MPH Wind |                                          |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench and AMEC. Provided on-site QC and documentation.  
 AMEC - Provided on-site engineering services and oversight of all field QC testing.  
 Moretrench - Excavation and Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
 Penetration of Landfill Liner  
 Stockpiling Excess Soils

**Quality Control Inspections and Activities (List by Feature of Work)**  
 All imported borrow for backfill mix inspected upon delivery.

Moretrench completed on-site QC testing of slurry being mixed in tanks prior to placement in trench along with on-site QC testing of slurry within the trench. Moretrech and AMEC also conducted on-site QC testing of backfill batches. Samples of backfill batches also collected for off-site QC testing. AMEC provided oversight of all Moretrench field QC testing to confirm testing was completed properly as per project specification and all results were within acceptable ranges. Limited amount of on-site QC testing performed as excavation activites were conducted under a short shift.

Bentonite Slurry:

|                          |                |
|--------------------------|----------------|
| Test                     | Time Conducted |
| Viscosity-Initial        | 1235           |
| Viscosity- In trench     | 1115 & 1430    |
| Density- Initial         | 1240           |
| Density- In trench       | 1121 & 1433    |
| Filtrate Loss- Initial   | 1312           |
| Filtrate Loss- In trench | 1153 & 1504    |
| pH- Initial              | 1243           |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Soil-Bentonite Backfill:

|         |                  |
|---------|------------------|
| Test    | Time Conducted   |
| Slump   | 1015, 1300, 1510 |
| Density | 1045, 1332, 1534 |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Samples collected of Soil-Bentonite Backfill for off-site analysis of Permeability, Gradation, and Materials Fines Content.

Backfill Slope soundings conducted at stations at the start and end of the work shift.  
 Current trench profile emailed under seperate cover to USACE representatives.

**Did anything develop that may lead to a Change Order/Claim ?**  
 No developments that may lead to a Change Order during the day.

**Were there any Delays in Work Progress today?**



| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                    | REPORT NUMBER<br>865                     | Page 2 of 3 |         |                    |      |       |      |       |      |       |      |       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|------------------------------------------|-------------|---------|--------------------|------|-------|------|-------|------|-------|------|-------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                    | DATE<br>11 Sep 2012 - Tuesday            |             |         |                    |      |       |      |       |      |       |      |       |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                    | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |         |                    |      |       |      |       |      |       |      |       |
| <p>Minor delays in work progress during the day. Excavation activities did not start until 0830 as Moretrench was waiting for replacement parts for the 374 excavator long-stick to be delivered to site. Moretrench made the determination that excavation activities could be completed without having to change the top stick cylinder bushing resulting in less down time.</p> <p><b>General Comments:</b><br/>         Work Completed During the Day:</p> <p>Sovereign: Provided project oversight and on-site QC of Moretrench and AMEC. Photographed progress of excavation and backfill mixing as trench advanced. Photo IDs: 091112-01 through 091012-02.</p> <p>AMEC: Geotechnical Engineer provided oversight of on-site QC testing performed by Moretrench and trench exvavation activities. Geotechnical Engineer made all final determination of trench depths and if refusal criteria had been met at each 10 foot station. Geotechnical Engineer completed on site Fine Content % of backfill mixes.</p> <p>Moretrench: Continued mixing slurry and filling tanks as needed. Continued backfill mixing with excavator. Completed excavation of trench from 7+80 to 8+20. Backfilled trench with 2 1/2 batches of backfill. Backfill complete up to station 7+00. Backfill quantities summarized on Trench Profile submitted under separte cover the USACE representatives. Performed all required on-site QC testing. Isolated slurry into tnaks 1 and 2 and began cleaning tank 3. General site clean-up at end of the shift.</p> <p>Final Trench Depths at 10 foot stations during the day:</p> <table border="1"> <thead> <tr> <th>Station</th> <th>Final Trench Depth</th> </tr> </thead> <tbody> <tr> <td>7+90</td> <td>37.7'</td> </tr> <tr> <td>8+00</td> <td>39.6'</td> </tr> <tr> <td>8+10</td> <td>39.2'</td> </tr> <tr> <td>8+20</td> <td>39.1'</td> </tr> </tbody> </table> <p>Materials Brought on Site:</p> <p>75 cys of Imported Clay Borrow for backfill mix (W.J. Graves)</p> <p>Equipment Brought on Site:</p> <p>No additional equipment brought on-site during the day.</p> <p>Additional Notes:</p> <p>Bill Brandon with US EPA on site during the day. Give a site walk-through and updated on progress of the project.</p> <p>No major comments or conerns noted.</p> <p><b>Verbal Instructions given by Government:</b><br/>         No verbal instructions given by the government during the day.</p> <p><b>Safety Inspection / Safety Meetings:</b><br/>         Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviuewed prior to start of work activties.</p> |                    |                                          |             | Station | Final Trench Depth | 7+90 | 37.7' | 8+00 | 39.6' | 8+10 | 39.2' | 8+20 | 39.1' |
| Station                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Final Trench Depth |                                          |             |         |                    |      |       |      |       |      |       |      |       |
| 7+90                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 37.7'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |
| 8+00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 39.6'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |
| 8+10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 39.2'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |
| 8+20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 39.1'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |
| Empty space for additional notes or comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           | REPORT NUMBER<br>865                     |                           | Page 3 of 3 |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |       |  |      |       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|------------------------------------------|---------------------------|-------------|---------------|----------------------|---------------------|-----------------|-----------|--------------------------|-------|------|-----------|---------------------------|------|------|-----------|------------------|------|------|-----------|----------------------|------|------|-----------|------------------|------|------|-----------|-------------|-------|-------|-------|--|------|-------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           | DATE<br>11 Sep 2012 - Tuesday            |                           |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |       |  |      |       |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |                           |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |       |  |      |       |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br>No QC Deficiency items were issued today<br>No Deficiency items were corrected today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                           |                                          |                           |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |       |  |      |       |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br>No contractors had their first or last day on site today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           |                                          |                           |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |       |  |      |       |
| <b>LABOR HOURS</b><br>The following labor hours were Reported today: <table border="1"> <thead> <tr> <th>Employer</th> <th>Labor Classification</th> <th>Number of Employees</th> <th>Hours Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td>4.0</td> <td>40.5</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td>3.0</td> <td>30.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td>1.0</td> <td>10.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td>1.0</td> <td>10.0</td> </tr> <tr> <td>Sovereign</td> <td>PROJECT ENGINEER</td> <td>1.0</td> <td>10.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td>1.0</td> <td>10.0</td> </tr> <tr> <td colspan="2">Total</td> <td>11.0</td> <td>110.5</td> </tr> </tbody> </table> Total hours worked to date: 2,672.8 |                           |                                          |                           |             | Employer      | Labor Classification | Number of Employees | Hours Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 4.0   | 40.5 | Moretrech | LABORERS                  | 3.0  | 30.0 | Moretrech | PROJECT ENGINEER | 1.0  | 10.0 | Moretrech | SUPER - CONSTRUCTION | 1.0  | 10.0 | Sovereign | PROJECT ENGINEER | 1.0  | 10.0 | Sovereign | SUPER - JOB | 1.0   | 10.0  | Total |  | 11.0 | 110.5 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Labor Classification      | Number of Employees                      | Hours Worked              |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |       |  |      |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | HEAVY-EQUIPMENT OPERATOR  | 4.0                                      | 40.5                      |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |       |  |      |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | LABORERS                  | 3.0                                      | 30.0                      |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |       |  |      |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | PROJECT ENGINEER          | 1.0                                      | 10.0                      |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |       |  |      |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | SUPER - CONSTRUCTION      | 1.0                                      | 10.0                      |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |       |  |      |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | PROJECT ENGINEER          | 1.0                                      | 10.0                      |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |       |  |      |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | SUPER - JOB               | 1.0                                      | 10.0                      |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |       |  |      |       |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           | 11.0                                     | 110.5                     |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |       |  |      |       |
| <b>EQUIPMENT HOURS</b><br>The following equipment hours were Reported today: <table border="1"> <thead> <tr> <th>Serial Number</th> <th>Description</th> <th>Idle Hours</th> <th>Operating Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td>10.50</td> <td>0.00</td> </tr> <tr> <td>N/A</td> <td>Exacavtor with Long Stick</td> <td>3.50</td> <td>7.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td>4.00</td> <td>6.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td>1.00</td> <td>9.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td>1.00</td> <td>9.50</td> </tr> <tr> <td colspan="2">Total</td> <td>20.00</td> <td>32.50</td> </tr> </tbody> </table> Total operating hours to date: 674.00                                                                                                                    |                           |                                          |                           |             | Serial Number | Description          | Idle Hours          | Operating Hours | N/A       | Bull Dozer               | 10.50 | 0.00 | N/A       | Exacavtor with Long Stick | 3.50 | 7.00 | N/A       | Loader           | 4.00 | 6.50 | N/A       | Mixing Excavator     | 1.00 | 9.50 | N/A       | Mixing Loader    | 1.00 | 9.50 | Total     |             | 20.00 | 32.50 |       |  |      |       |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Description               | Idle Hours                               | Operating Hours           |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |       |  |      |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Bull Dozer                | 10.50                                    | 0.00                      |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |       |  |      |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Exacavtor with Long Stick | 3.50                                     | 7.00                      |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |       |  |      |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Loader                    | 4.00                                     | 6.50                      |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |       |  |      |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Mixing Excavator          | 1.00                                     | 9.50                      |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |       |  |      |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Mixing Loader             | 1.00                                     | 9.50                      |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |       |  |      |       |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           | 20.00                                    | 32.50                     |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |       |  |      |       |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br>No accidents reported today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                           |                                          |                           |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |       |  |      |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           |                                          |                           |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |       |  |      |       |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |                                          |                           |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |       |  |      |       |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                           | DATE                                     | SUPERINTENDENT'S INITIALS |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |       |  |      |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           |                                          |                           |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |       |  |      |       |

|                                                                                     |  |                                                                                                      |             |
|-------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |  | REPORT NUMBER<br>866                                                                                 | Page 1 of 3 |
|                                                                                     |  | DATE<br>12 Sep 2012 - Wednesday                                                                      |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |  | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                             |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             |  | WEATHER<br>Weather Caused No Delay<br>Temperature Min 62 °F, Max 80 °F; No Precipitation; 5 MPH Wind |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench and AMEC. Provided on-site QC and documentation.  
 AMEC - Provided on-site engineering services and oversight of all field QC testing.  
 Moretrench - Excavation and Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
     Penetration of Landfill Liner  
     Stockpiling Excess Soils

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Moretrech and AMEC also conducted on-site QC testing of backfill batches. Samples of backfill batches also collected for off-site QC testing. AMEC provided oversight of all Moretrench field QC testing to confirm testing was completed properly as per project specification and all results were within acceptable ranges. Moretrench did not conduct on-site QC testing of slurry as no additional slurry was added to the trench during the day and excavation activities out to final station 8+50 were completed by 1200.

Soil-Bentonite Backfill:

|         |                |
|---------|----------------|
| Test    | Time Conducted |
| Slump   | 1300 & 1330    |
| Density | 1318 & 1335    |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Samples collected of Soil-Bentonite Backfill for off-site analysis of Permeability, Gradation, and Materials Fines Content. AMEC conducted Materials Fines Content on backfill mix batches 36 through 38. Average Fines content of the three batches was 48%.

Completed trench profile emailed under seperate cover to USACE representatives.

**Did anything develop that may lead to a Change Order/Claim?**  
 No developments that may lead to a Change Order during the day.

**Were there any Delays in Work Progress today?**  
 No delays in work progress during the day.

**General Comments:**  
 Work Completed During the Day:

Sovereign: Provided project oversight and on-site QC of Moretrench and AMEC. Photographed progress of excavation and backfill mixing as trench advanced. Photo IDs: 091212-01 through 091212-04.

AMEC: Geotechnical Engineer provided oversight of on-site QC testing performed by Moretrench and trench exvcavation activities. Geotechnical Engineer made all final determination of trench depths and if refusal criteria had been met at each 10 foot station. Geotechnical Engineer completed on site Fine Content % of backfill mixes.

Moretrench: Continued backfill mixing with excavator. Completed excavation of trench from 8+20 to 8+50 by 1200. Backfilled trench with 1 1/2 batches of backfill. Backfill complete up to station 7+60. Backfill quantities summarized on Trench Profile submitted under seperate cover the USACE representatives. Performed all required on-site QC testing. Isolated Slurry into Tank 2. Began cleaning Tank 1 and continued cleaning Tank 2.

Final Trench Depths at 10 foot stations during the day:

|                                                                                     |  |                                                                     |  |
|-------------------------------------------------------------------------------------|--|---------------------------------------------------------------------|--|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |  | REPORT NUMBER<br>866 <span style="float: right;">Page 2 of 3</span> |  |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |  | DATE<br>12 Sep 2012 - Wednesday                                     |  |
| CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                            |  |                                                                     |  |

|         |                    |  |
|---------|--------------------|--|
| Station | Final Trench Depth |  |
| 8+30    | 39.1'              |  |
| 8+40    | 38.5'              |  |
| 8+50    | 39.4'              |  |

Materials Brought on Site:

No new material brought on site during the day.

Equipment Brought on Site:

No additional equipment brought on-site during the day.

Additional Notes:

Randy LeCuyer (USACE Construction Rep.) on site during the morning. Given a site walk-through and updated on progress of the project. Dissussed site restoration plan that was requested by the USACE Ecologist and determined that the entire area to be restored was a flat dry area and the warmseason grass mix requested by the USACE Ecologist would be used. In addition no top soil/loam would be used. The sand soil from the existing stockpile on site would be used instead removing all rocks greater than 6 inches. Further details to be discussed in the Preparatory Meeting for DFW: Site Restoration.

No other major comments or concerns noted.

MassDEP on site during the afternoon. Given a site walk-through and updated on progress of the project.

No major comments or concerns noted.

**Verbal Instructions given by Government:**

No verbal instructions given by the government during the day.

**Safety Inspection / Safety Meetings:**

Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviuewed prior to start of work activties.

---

**PREP/INITIAL DATES** (Preparatory and initial dates held and advance notice)

**No preparatory or initial inspections were held today**

---

**ACTIVITY START/FINISH**

**No activities were started or finished today**

---

**QC REQUIREMENTS**

**No QC requirements were completed today**

---

**QA/QC DEFICIENCY** (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)

**No QC Deficiency items were issued today**

**No Deficiency items were corrected today**

---

**CONTRACTORS ON SITE** (Report first and/or last day contractors were on site)

**No contractors had their first or last day on site today**

---

**LABOR HOURS**

**The following labor hours were Reported today:**

| Employer  | Labor Classification     | Number of Employees | Hours Worked |
|-----------|--------------------------|---------------------|--------------|
| Moretrech | HEAVY-EQUIPMENT OPERATOR | 4.0                 | 32.5         |
| Moretrech | LABORERS                 | 3.0                 | 24.0         |
| Moretrech | PROJECT ENGINEER         | 1.0                 | 8.0          |

|                                                                                                                                                                                                                                                                                                                       |                                                                            |                                          |                                  |             |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|------------------------------------------|----------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                   |                                                                            | REPORT NUMBER<br>866                     |                                  | Page 3 of 3 |
|                                                                                                                                                                                                                                                                                                                       |                                                                            | DATE<br>12 Sep 2012 - Wednesday          |                                  |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                      |                                                                            | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |                                  |             |
| Moretrech<br>Sovereign<br>Sovereign<br>Sovereign<br>Total hours worked to date: 2,766.3                                                                                                                                                                                                                               | SUPER - CONSTRUCTION<br>PROJECT ENGINEER<br>PROJECT MANAGER<br>SUPER - JOB | 1.0<br>1.0<br>1.0<br>1.0<br>12.0         | 8.0<br>8.0<br>5.0<br>8.0<br>93.5 |             |
| <b>EQUIPMENT HOURS</b><br><b>No equipment hours were Reported today</b><br>Total operating hours to date: 674.00                                                                                                                                                                                                      |                                                                            |                                          |                                  |             |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                  |                                                                            |                                          |                                  |             |
| <div style="height: 500px;"></div>                                                                                                                                                                                                                                                                                    |                                                                            |                                          |                                  |             |
| CONTRACTOR CERTIFICATION <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b> |                                                                            |                                          |                                  |             |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                         |                                                                            | DATE                                     | SUPERINTENDENT'S INITIALS        |             |
|                                                                                                                                                                                                                                                                                                                       |                                                                            |                                          |                                  |             |

|                                                                                     |  |                                                                                                      |             |
|-------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |  | REPORT NUMBER<br>867                                                                                 | Page 1 of 3 |
|                                                                                     |  | DATE<br>13 Sep 2012 - Thursday                                                                       |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |  | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                             |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             |  | WEATHER<br>Weather Caused No Delay<br>Temperature Min 62 °F, Max 80 °F; No Precipitation; 5 MPH Wind |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench and AMEC. Provided on-site QC and documentation.  
 AMEC - Provided on-site engineering services and oversight of all field QC testing.  
 Moretrench - Excavation and Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
       Stockpiling Excess Soils  
       Site Restoration / Demobilization

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Moretrench and AMEC conducted on-site QC testing of backfill batches. Samples of backfill batches also collected for off-site QC testing.  
 AMEC provided oversight of all Moretrench field QC testing to confirm testing was completed properly as per project specification and all results were within acceptable ranges.  
 Soil-Bentonite Backfill:

|         |                   |
|---------|-------------------|
| Test    | Time Conducted    |
| Slump   | 0900, 1130 & 1413 |
| Density | 0920, 1135 & 1435 |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Samples collected of Soil-Bentonite Backfill for off-site analysis of Permeability, Gradation, and Materials Fines Content.  
 AMEC conducted Materials Fines Content on backfill mix batches 39 and 40. Average Fines content of the two batches was 48%.

Completed trench profile emailed under seperate cover to USACE representatives.

**Did anything develop that may lead to a Change Order/Claim?**  
 No developments that may lead to a Change Order during the day.

**Were there any Delays in Work Progress today?**  
 No delays in work progress during the day.

**General Comments:**  
 Work Completed During the Day:

Sovereign: Provided project oversight and on-site QC of Moretrench and AMEC. Photographed progress of excavation and backfill mixing as trench advanced. Photo IDs: 091312-01 through 091312-06.

AMEC: Geotechnical Engineer provided overisght of the completion of trench backfilling activties and completed on site Fine Content % of backfill mixes.

Moretrench: Continued backfill mixing with excavator. Backfilled trench with 2 1/2 batches of backfill. Backfill complete up to station 8+50. Backfill complete for entire barrier wall. Backfill quantities summarized on Trench Profile submitted under seperate cover the USACE representatives. Performed all required on-site QC testing for backfill mixes. Slurry Tanks 1&3 completely cleaned. Broke down slurry hoses along the side of the former trenching area. Removed circulation pumps from all tanks and cleaned and stored on pallets for removal from site. Began disassembling electric boxes from side of Tank 3.

Materials Brought on Site:

No new material brought on site during the day.

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           | REPORT NUMBER<br>867                     |                 | Page 2 of 3 |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |     |     |           |             |     |     |       |  |      |      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|------------------------------------------|-----------------|-------------|---------------|----------------------|---------------------|-----------------|-----------|--------------------------|------|------|-----------|---------------------------|------|------|-----------|------------------|------|------|-----------|----------------------|------|------|-----------|------------------|-----|-----|-----------|-------------|-----|-----|-------|--|------|------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           | DATE<br>13 Sep 2012 - Thursday           |                 |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |     |     |           |             |     |     |       |  |      |      |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |                 |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |     |     |           |             |     |     |       |  |      |      |
| <p>Equipment Brought on Site:</p> <p>No additional equipment brought on-site during the day.</p> <p>Additional Notes:</p> <p>The last three backfill matches were mixed using 50 pound bags of bentonite as all the supersacks of bentonite had been used. Ninety 50 pound bags were added to each batch for approximately a 1.5% bentonite content.</p> <p>No other major comments or concerns noted.</p> <p><b>Verbal Instructions given by Government:</b></p> <p>No verbal instructions given by the government during the day.</p> <p><b>Safety Inspection / Safety Meetings:</b></p> <p>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's reviewed prior to start of work activities.</p>                                                                                                                                |                           |                                          |                 |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |     |     |           |             |     |     |       |  |      |      |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           |                                          |                 |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |     |     |           |             |     |     |       |  |      |      |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           |                                          |                 |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |     |     |           |             |     |     |       |  |      |      |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           |                                          |                 |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |     |     |           |             |     |     |       |  |      |      |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           |                                          |                 |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |     |     |           |             |     |     |       |  |      |      |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           |                                          |                 |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |     |     |           |             |     |     |       |  |      |      |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table border="1"> <thead> <tr> <th>Employer</th> <th>Labor Classification</th> <th>Number of Employees</th> <th>Hours Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td>4.0</td> <td>32.5</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td>3.0</td> <td>24.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td>Sovereign</td> <td>PROJECT ENGINEER</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td colspan="2">Total</td> <td>11.0</td> <td>88.5</td> </tr> </tbody> </table> <p>Total hours worked to date: 2,854.8</p> |                           |                                          |                 |             | Employer      | Labor Classification | Number of Employees | Hours Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 4.0  | 32.5 | Moretrech | LABORERS                  | 3.0  | 24.0 | Moretrech | PROJECT ENGINEER | 1.0  | 8.0  | Moretrech | SUPER - CONSTRUCTION | 1.0  | 8.0  | Sovereign | PROJECT ENGINEER | 1.0 | 8.0 | Sovereign | SUPER - JOB | 1.0 | 8.0 | Total |  | 11.0 | 88.5 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Labor Classification      | Number of Employees                      | Hours Worked    |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |     |     |           |             |     |     |       |  |      |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | HEAVY-EQUIPMENT OPERATOR  | 4.0                                      | 32.5            |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |     |     |           |             |     |     |       |  |      |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | LABORERS                  | 3.0                                      | 24.0            |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |     |     |           |             |     |     |       |  |      |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | PROJECT ENGINEER          | 1.0                                      | 8.0             |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |     |     |           |             |     |     |       |  |      |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | SUPER - CONSTRUCTION      | 1.0                                      | 8.0             |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |     |     |           |             |     |     |       |  |      |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | PROJECT ENGINEER          | 1.0                                      | 8.0             |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |     |     |           |             |     |     |       |  |      |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | SUPER - JOB               | 1.0                                      | 8.0             |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |     |     |           |             |     |     |       |  |      |      |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           | 11.0                                     | 88.5            |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |     |     |           |             |     |     |       |  |      |      |
| <b>EQUIPMENT HOURS</b><br><b>The following equipment hours were Reported today:</b> <table border="1"> <thead> <tr> <th>Serial Number</th> <th>Description</th> <th>Idle Hours</th> <th>Operating Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td>8.50</td> <td>0.00</td> </tr> <tr> <td>N/A</td> <td>Exacavtor with Long Stick</td> <td>5.00</td> <td>3.50</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td>4.50</td> <td>4.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td>1.00</td> <td>7.50</td> </tr> </tbody> </table>                                                                                                                                                                                                                                                                                                            |                           |                                          |                 |             | Serial Number | Description          | Idle Hours          | Operating Hours | N/A       | Bull Dozer               | 8.50 | 0.00 | N/A       | Exacavtor with Long Stick | 5.00 | 3.50 | N/A       | Loader           | 4.50 | 4.00 | N/A       | Mixing Excavator     | 1.00 | 7.50 |           |                  |     |     |           |             |     |     |       |  |      |      |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Description               | Idle Hours                               | Operating Hours |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |     |     |           |             |     |     |       |  |      |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Bull Dozer                | 8.50                                     | 0.00            |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |     |     |           |             |     |     |       |  |      |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Exacavtor with Long Stick | 5.00                                     | 3.50            |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |     |     |           |             |     |     |       |  |      |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Loader                    | 4.50                                     | 4.00            |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |     |     |           |             |     |     |       |  |      |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Mixing Excavator          | 1.00                                     | 7.50            |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |     |     |           |             |     |     |       |  |      |      |

|                                                                                                                                                                                                                                                                                                                       |               |                                          |                           |             |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|------------------------------------------|---------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                   |               | REPORT NUMBER<br>867                     |                           | Page 3 of 3 |
|                                                                                                                                                                                                                                                                                                                       |               | DATE<br>13 Sep 2012 - Thursday           |                           |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                      |               | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |                           |             |
| N/A                                                                                                                                                                                                                                                                                                                   | Mixing Loader |                                          | 1.00                      | 7.50        |
| Total operating hours to date: 696.50                                                                                                                                                                                                                                                                                 |               | Total                                    | 20.00                     | 22.50       |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                  |               |                                          |                           |             |
|                                                                                                                                                                                                                                                                                                                       |               |                                          |                           |             |
| CONTRACTOR CERTIFICATION <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b> |               |                                          |                           |             |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                         |               | DATE                                     | SUPERINTENDENT'S INITIALS | DATE        |



|                                                                                     |                                                                                                       |                                          |             |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |                                                                                                       | REPORT NUMBER<br>868                     | Page 1 of 2 |
|                                                                                     |                                                                                                       | DATE<br>14 Sep 2012 - Friday             |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |                                                                                                       | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             | WEATHER<br>Weather Caused No Delay<br>Temperature Min 58 °F, Max 48 °F; No Precipitation; 10 MPH Wind |                                          |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.  
 Moretrench - Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
 Stockpiling Excess Soils  
 Site Restoration / Demobilization

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Preparatory Meeting held for D.F.W: Site Restoration / Demobilization.

One sample collected of Low Permability Borrow for off-site anaylsis of hydraulic conductivity.  
 This material will be used to construct the cap of the soil-bentonite wall.

**Did anything develop that may lead to a Change Order/Claim ?**  
 No developments that may lead to a Change Order during the day.

**Were there any Delays in Work Progress today?**  
 No delays in work progress during the day.

**General Comments:**  
 Work Completed During the Day:

Sovereign: Provided project oversight and on-site QC of Moretrench and AMEC. Photographed progress of excavation and backfill mixing as trench advanced. Photo IDs: 091412-01 through 091412-05.

Moretrench: Completed the cleaning of Slurry Tanks 2. Cleaned out Slurry Hoses. Began cutting 4 inch HDPE piping from along the side of the former trenching area. Continued cleaning of circulation pumps from all tanks and storing on pallets for removal from site. Continued disassembling electric boxes from side of Tank 3. Cleaned the CAT 374 excavator and long-stick for removal from site the following week. Spread out materail from along side of the former trench to dry out the excess slurry with the dozer and loader. Started to remove contain berms with the CAT 329 excavator from station 0+00 to approximately 3+00.

Materials Brought on Site:

No new material brought on site during the day.

Equipment Brought on Site:

No additional equipment brought on-site during the day.

Additional Notes:

No other major comments or conerns noted.

**Verbal Instructions given by Government:**  
 No verbal instructions given by the government excpet for those noted during the Preparatory Meeting for D.F.W: Site Restoration / Demobilization.

All instructions noted in 3 Phases Inspection section of RMS.

**Safety Inspection / Safety Meetings:**

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                           | REPORT NUMBER<br>868 <span style="float: right;">Page 2 of 2</span> |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------------------------------------------|--------------------|---------------|----------------------|------------------------|--------------------|-----------|--------------------------|------|------|-----------|---------------------------|------|------|-----------|------------------|------|------|-----------|----------------------|------|------|-----------|---------------|------|------|---------------------------------------|--|-------------|-------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           | DATE<br>14 Sep 2012 - Friday                                        |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's reviewed prior to start of work activities.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>A preparatory inspection was held today for the following feature:</b><br>Site Restoration / Demob.<br><b>No initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">4.0</td> <td style="text-align: right;">32.5</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">3.0</td> <td style="text-align: right;">19.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total hours worked to date: 2,930.3</td> <td style="text-align: right; border-top: 1px solid black;">Total 10.0</td> <td style="text-align: right; border-top: 1px solid black;">75.5</td> </tr> </tbody> </table> |                           |                                                                     |                    | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 4.0  | 32.5 | Moretrech | LABORERS                  | 3.0  | 19.0 | Moretrech | PROJECT ENGINEER | 1.0  | 8.0  | Moretrech | SUPER - CONSTRUCTION | 1.0  | 8.0  | Sovereign | SUPER - JOB   | 1.0  | 8.0  | Total hours worked to date: 2,930.3   |  | Total 10.0  | 75.5  |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Labor Classification      | Number of<br>Employees                                              | Hours<br>Worked    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | HEAVY-EQUIPMENT OPERATOR  | 4.0                                                                 | 32.5               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | LABORERS                  | 3.0                                                                 | 19.0               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | PROJECT ENGINEER          | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | SUPER - CONSTRUCTION      | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | SUPER - JOB               | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Total hours worked to date: 2,930.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                           | Total 10.0                                                          | 75.5               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>EQUIPMENT HOURS</b><br><b>The following equipment hours were Reported today:</b> <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle<br/>Hours</th> <th style="text-align: right;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">2.00</td> <td style="text-align: right;">6.50</td> </tr> <tr> <td>N/A</td> <td>Exacavtor with Long Stick</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">4.50</td> <td style="text-align: right;">4.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td style="text-align: right;">3.00</td> <td style="text-align: right;">5.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td style="text-align: right;">2.00</td> <td style="text-align: right;">6.50</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total operating hours to date: 719.00</td> <td style="text-align: right; border-top: 1px solid black;">Total 20.00</td> <td style="text-align: right; border-top: 1px solid black;">22.50</td> </tr> </tbody> </table>                              |                           |                                                                     |                    | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A       | Bull Dozer               | 2.00 | 6.50 | N/A       | Exacavtor with Long Stick | 8.50 | 0.00 | N/A       | Loader           | 4.50 | 4.00 | N/A       | Mixing Excavator     | 3.00 | 5.50 | N/A       | Mixing Loader | 2.00 | 6.50 | Total operating hours to date: 719.00 |  | Total 20.00 | 22.50 |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Description               | Idle<br>Hours                                                       | Operating<br>Hours |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Bull Dozer                | 2.00                                                                | 6.50               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Exacavtor with Long Stick | 8.50                                                                | 0.00               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Loader                    | 4.50                                                                | 4.00               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Mixing Excavator          | 3.00                                                                | 5.50               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Mixing Loader             | 2.00                                                                | 6.50               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Total operating hours to date: 719.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           | Total 20.00                                                         | 22.50              |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>CONTRACTOR CERTIFICATION</b> <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | DATE                      | SUPERINTENDENT'S INITIALS                                           | DATE               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                                                                                                      |             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  | REPORT NUMBER<br>871                                                                                 | Page 1 of 2 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  | DATE<br>17 Sep 2012 - Monday                                                                         |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                             |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  | WEATHER<br>Weather Caused No Delay<br>Temperature Min 49 °F, Max 73 °F; No Precipitation; 5 MPH Wind |             |
| <b>QC NARRATIVES</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |                                                                                                      |             |
| <b>Contractor/Subcontractor &amp; Area of Responsibility for work:</b><br>Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.<br>Moretrench - Barrier Wall Construction Contractor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |                                                                                                      |             |
| <b>Activities in Progress (List by Activity Number)</b><br>DFW: Soil-Bentonite Wall Construction<br>Stockpiling Excess Soils<br>Site Restoration / Demobilization                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                                                                                                      |             |
| <b>Quality Control Inspections and Activities (List by Feature of Work)</b><br>Soverign conducted QC inspections of stockpiling of trench spoils with trash.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |                                                                                                      |             |
| <b>Did anything develop that may lead to a Change Order/Claim?</b><br>No developments that may lead to a Change Order during the day.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |                                                                                                      |             |
| <b>Were there any Delays in Work Progress today?</b><br>No delays in work progress during the day.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |                                                                                                      |             |
| <b>General Comments:</b><br>Work Completed During the Day:<br><br>Sovereign: Provided project oversight and on-site QC of Moretrench and AMEC. Photographed progress of excavation and backfill mixing as trench advanced. Photo IDs: 091712-01 through 091712-06.<br><br>Moretrench: Cleaned and disassembled slurry plant and diesel pump. Completed disassembly of electric boxes. Prepared hoses, fittings and junction boxes for removal from site. Continued cutting 4 inch HDPE pipe. Continued to spread out materail from along side of the former trench to dry out the excess slurry with the dozer and loader. Began grading first 400 feet of barrier wall area for proper drainage. Moved trench spoils with trash to stockpiling area.<br><br>Materials Brought on Site:<br><br>No new material brought on site during the day.<br><br>Equipment Brought on Site:<br><br>No additional equipment brought on-site during the day.<br><br>Additional Notes:<br><br>No other major comments or conerns noted. |  |                                                                                                      |             |
| <b>Verbal Instructions given by Government:</b><br>No verbal instructions given by the government during the day.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                                                                                                      |             |
| <b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviued prior to start of work activties.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |                                                                                                      |             |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                                                                                                      |             |
| Empty space for additional notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                                                                                                      |             |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           | REPORT NUMBER<br>871 <span style="float: right;">Page 2 of 2</span> |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------------------------------------------|--------------------|---------------|----------------------|------------------------|--------------------|-----------|--------------------------|------|------|-----------|---------------------------|------|------|-----------|------------------|------|------|-----------|----------------------|------|------|-----------|---------------|------|------|---------------------------------------|--|-------------|-------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           | DATE<br>17 Sep 2012 - Monday                                        |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>ACTIVITY START/FINISH</b><br>No activities were started or finished today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>QC REQUIREMENTS</b><br>No QC requirements were completed today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br>No QC Deficiency items were issued today<br>No Deficiency items were corrected today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br>No contractors had their first or last day on site today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>LABOR HOURS</b><br>The following labor hours were Reported today: <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">4.0</td> <td style="text-align: right;">32.5</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">3.0</td> <td style="text-align: right;">24.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td colspan="2">Total hours worked to date: 3,010.8</td> <td style="text-align: right;">Total 10.0</td> <td style="text-align: right;">80.5</td> </tr> </tbody> </table> |                           |                                                                     |                    | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 4.0  | 32.5 | Moretrech | LABORERS                  | 3.0  | 24.0 | Moretrech | PROJECT ENGINEER | 1.0  | 8.0  | Moretrech | SUPER - CONSTRUCTION | 1.0  | 8.0  | Sovereign | SUPER - JOB   | 1.0  | 8.0  | Total hours worked to date: 3,010.8   |  | Total 10.0  | 80.5  |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Labor Classification      | Number of<br>Employees                                              | Hours<br>Worked    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | HEAVY-EQUIPMENT OPERATOR  | 4.0                                                                 | 32.5               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | LABORERS                  | 3.0                                                                 | 24.0               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | PROJECT ENGINEER          | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | SUPER - CONSTRUCTION      | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | SUPER - JOB               | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Total hours worked to date: 3,010.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           | Total 10.0                                                          | 80.5               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>EQUIPMENT HOURS</b><br>The following equipment hours were Reported today: <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle<br/>Hours</th> <th style="text-align: right;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">2.00</td> <td style="text-align: right;">6.50</td> </tr> <tr> <td>N/A</td> <td>Exacavtor with Long Stick</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">4.50</td> <td style="text-align: right;">4.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td style="text-align: right;">3.00</td> <td style="text-align: right;">5.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td style="text-align: right;">2.00</td> <td style="text-align: right;">6.50</td> </tr> <tr> <td colspan="2">Total operating hours to date: 741.50</td> <td style="text-align: right;">Total 20.00</td> <td style="text-align: right;">22.50</td> </tr> </tbody> </table>                              |                           |                                                                     |                    | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A       | Bull Dozer               | 2.00 | 6.50 | N/A       | Exacavtor with Long Stick | 8.50 | 0.00 | N/A       | Loader           | 4.50 | 4.00 | N/A       | Mixing Excavator     | 3.00 | 5.50 | N/A       | Mixing Loader | 2.00 | 6.50 | Total operating hours to date: 741.50 |  | Total 20.00 | 22.50 |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Description               | Idle<br>Hours                                                       | Operating<br>Hours |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Bull Dozer                | 2.00                                                                | 6.50               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Exacavtor with Long Stick | 8.50                                                                | 0.00               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Loader                    | 4.50                                                                | 4.00               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Mixing Excavator          | 3.00                                                                | 5.50               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Mixing Loader             | 2.00                                                                | 6.50               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Total operating hours to date: 741.50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           | Total 20.00                                                         | 22.50              |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br>No accidents reported today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | DATE                      | SUPERINTENDENT'S INITIALS                                           | DATE               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |

|                                                                                     |                                                                                                      |                                          |             |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |                                                                                                      | REPORT NUMBER<br>872                     | Page 1 of 2 |
|                                                                                     |                                                                                                      | DATE<br>18 Sep 2012 - Tuesday            |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |                                                                                                      | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             | WEATHER<br>Weather Caused No Delay<br>Temperature Min 55 °F, Max 70 °F; No Precipitation; 5 MPH Wind |                                          |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.  
 Moretrench - Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
 Stockpiling Excess Soils  
 Site Restoration / Demobilization

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Soverign conducted QC inspections of grading activites.

**Did anything develop that may lead to a Change Order/Claim?**  
 No developments that may lead to a Change Order during the day.

**Were there any Delays in Work Progress today?**  
 No delays in work progress during the day.

**General Comments:**  
 Work Completed During the Day:

Sovereign: Provided project oversight and on-site QC of Moretrench and AMEC. Photographed progress of excavation and backfill mixing as trench advanced. Photo IDs: 091812-01 through 091812-06.

Moretrench: Loaded Moretrench trailer with slurry plant operations equipment for removal from site during the day ( slurry plant, diesel pump, generator, hoses, fittings, submersible pumps, elctrical boxes, fusing machine). Installed silt fence around trech spoil piles. Continued to spread out materail from along side of the former trench to dry out the excess slurry with the dozer and loader. Conitued grading first 400 feet of barrier wall area for proper drainage. Broke apart berms in laydown area with CAT 329. Mixed 1 batch of low permability backfill for cap installation.

Materials Brought on Site:

3 rolls (12 X 350 feet) of Marafi Woven Geotextile Fabric

Equipment Brought on Site:

No additional equipment brought on-site during the day.

Additional Notes:

No other major comments or conerns noted.

**Verbal Instructions given by Government:**  
 No verbal instructions given by the government during the day.

**Safety Inspection / Safety Meetings:**  
 Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviued prior to start of work activties.

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           | REPORT NUMBER<br>872 <span style="float: right;">Page 2 of 2</span> |                                   |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------------------------------------------|-----------------------------------|---------------|----------------------|------------------------|--------------------|-----------|--------------------------|------|------|-----------|---------------------------|------|------|-----------|------------------|------|------|-----------|----------------------|------|------|-----------|---------------|------|------|---------------------------------------|--|-------------|-------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           | DATE<br>18 Sep 2012 - Tuesday                                       |                                   |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                            |                                   |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           |                                                                     |                                   |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           |                                                                     |                                   |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           |                                                                     |                                   |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           |                                                                     |                                   |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           |                                                                     |                                   |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table border="0" style="width: 100%;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">4.0</td> <td style="text-align: right;">32.5</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td colspan="2">Total hours worked to date: 3,075.3</td> <td style="text-align: right;">Total 8.0</td> <td style="text-align: right;">64.5</td> </tr> </tbody> </table> |                           |                                                                     |                                   | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 4.0  | 32.5 | Moretrech | LABORERS                  | 1.0  | 8.0  | Moretrech | PROJECT ENGINEER | 1.0  | 8.0  | Moretrech | SUPER - CONSTRUCTION | 1.0  | 8.0  | Sovereign | SUPER - JOB   | 1.0  | 8.0  | Total hours worked to date: 3,075.3   |  | Total 8.0   | 64.5  |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Labor Classification      | Number of<br>Employees                                              | Hours<br>Worked                   |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | HEAVY-EQUIPMENT OPERATOR  | 4.0                                                                 | 32.5                              |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | LABORERS                  | 1.0                                                                 | 8.0                               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | PROJECT ENGINEER          | 1.0                                                                 | 8.0                               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | SUPER - CONSTRUCTION      | 1.0                                                                 | 8.0                               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | SUPER - JOB               | 1.0                                                                 | 8.0                               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Total hours worked to date: 3,075.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           | Total 8.0                                                           | 64.5                              |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>EQUIPMENT HOURS</b><br><b>The following equipment hours were Reported today:</b> <table border="0" style="width: 100%;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle<br/>Hours</th> <th style="text-align: right;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">2.00</td> <td style="text-align: right;">6.50</td> </tr> <tr> <td>N/A</td> <td>Exacavtor with Long Stick</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">4.50</td> <td style="text-align: right;">4.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td style="text-align: right;">3.00</td> <td style="text-align: right;">5.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td style="text-align: right;">2.00</td> <td style="text-align: right;">6.50</td> </tr> <tr> <td colspan="2">Total operating hours to date: 764.00</td> <td style="text-align: right;">Total 20.00</td> <td style="text-align: right;">22.50</td> </tr> </tbody> </table>                            |                           |                                                                     |                                   | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A       | Bull Dozer               | 2.00 | 6.50 | N/A       | Exacavtor with Long Stick | 8.50 | 0.00 | N/A       | Loader           | 4.50 | 4.00 | N/A       | Mixing Excavator     | 3.00 | 5.50 | N/A       | Mixing Loader | 2.00 | 6.50 | Total operating hours to date: 764.00 |  | Total 20.00 | 22.50 |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Description               | Idle<br>Hours                                                       | Operating<br>Hours                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Bull Dozer                | 2.00                                                                | 6.50                              |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Exacavtor with Long Stick | 8.50                                                                | 0.00                              |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Loader                    | 4.50                                                                | 4.00                              |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Mixing Excavator          | 3.00                                                                | 5.50                              |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Mixing Loader             | 2.00                                                                | 6.50                              |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Total operating hours to date: 764.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           | Total 20.00                                                         | 22.50                             |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           |                                                                     |                                   |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           |                                                                     |                                   |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>CONTRACTOR CERTIFICATION</b> <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           |                                                                     |                                   |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           | DATE                                                                | SUPERINTENDENT'S INITIALS<br>DATE |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                       |                                          |             |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                       | REPORT NUMBER<br>873                     | Page 1 of 2 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                       | DATE<br>19 Sep 2012 - Wednesday          |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                       | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | WEATHER<br>Weather Caused No Delay<br>Temperature Min 48 °F, Max 72 °F; No Precipitation; 10 MPH Wind |                                          |             |
| <b>QC NARRATIVES</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                       |                                          |             |
| <b>Contractor/Subcontractor &amp; Area of Responsibility for work:</b><br>Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.<br>Moretrench - Barrier Wall Construction Contractor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                       |                                          |             |
| <b>Activities in Progress (List by Activity Number)</b><br>DFW: Soil-Bentonite Wall Construction<br>Stockpiling Excess Soils<br>Site Restoration / Demobilization                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                       |                                          |             |
| <b>Quality Control Inspections and Activities (List by Feature of Work)</b><br>Soverign conducted QC inspections of grading and site restoration activites.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                       |                                          |             |
| <b>Did anything develop that may lead to a Change Order/Claim?</b><br>No developments that may lead to a Change Order during the day.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                       |                                          |             |
| <b>Were there any Delays in Work Progress today?</b><br>No delays in work progress during the day.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                       |                                          |             |
| <b>General Comments:</b><br>Work Completed During the Day:<br><br>Sovereign: Provided project oversight and on-site QC of Moretrench.<br><br>Moretrench: Removed the three Adler Tanks from site. Following removal of Adler Tanks area graded to match exsisting grade. Continued to spread out material to dry out excess slurry and soil with dozer and loader. Continued grading work for proper drainage. Excavated new drainage swail to restore as it was removed during trenching activities. Set up small generator to power job trailers. Miscellaneous site clean-up. Mixed 1 batch of low permability backfill for cap installation.<br><br>Materials Brought on Site:<br><br>No new material brought on site during the day.<br><br>Equipment Brought on Site:<br><br>9500W Generator on-site during the day.<br><br>Additional Notes:<br><br>No other major comments or conerns noted. |                                                                                                       |                                          |             |
| <b>Verbal Instructions given by Government:</b><br>No verbal instructions given by the government during the day.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                       |                                          |             |
| <b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviuewed prior to start of work activties.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                       |                                          |             |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                       |                                          |             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                       |                                          |             |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           | REPORT NUMBER<br>873 <div style="text-align: right;">Page 2 of 2</div> |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|------------------------------------------------------------------------|--------------------|---------------|----------------------|------------------------|--------------------|-----------|--------------------------|------|------|-----------|---------------------------|------|------|-----------|------------------|------|------|-----------|----------------------|------|------|-----------|---------------|------|------|---------------------------------------|--|-------------|-------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           | DATE<br>19 Sep 2012 - Wednesday                                        |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>ACTIVITY START/FINISH</b><br>No activities were started or finished today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                               |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>QC REQUIREMENTS</b><br>No QC requirements were completed today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                           |                                                                        |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br>No QC Deficiency items were issued today<br>No Deficiency items were corrected today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           |                                                                        |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br>No contractors had their first or last day on site today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           |                                                                        |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>LABOR HOURS</b><br>The following labor hours were Reported today: <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">4.0</td> <td style="text-align: right;">32.5</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total hours worked to date: 3,139.8</td> <td style="text-align: right; border-top: 1px solid black;">Total 8.0</td> <td style="text-align: right; border-top: 1px solid black;">64.5</td> </tr> </tbody> </table> |                           |                                                                        |                    | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 4.0  | 32.5 | Moretrech | LABORERS                  | 1.0  | 8.0  | Moretrech | PROJECT ENGINEER | 1.0  | 8.0  | Moretrech | SUPER - CONSTRUCTION | 1.0  | 8.0  | Sovereign | SUPER - JOB   | 1.0  | 8.0  | Total hours worked to date: 3,139.8   |  | Total 8.0   | 64.5  |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Labor Classification      | Number of<br>Employees                                                 | Hours<br>Worked    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | HEAVY-EQUIPMENT OPERATOR  | 4.0                                                                    | 32.5               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | LABORERS                  | 1.0                                                                    | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | PROJECT ENGINEER          | 1.0                                                                    | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | SUPER - CONSTRUCTION      | 1.0                                                                    | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | SUPER - JOB               | 1.0                                                                    | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Total hours worked to date: 3,139.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           | Total 8.0                                                              | 64.5               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>EQUIPMENT HOURS</b><br>The following equipment hours were Reported today: <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle<br/>Hours</th> <th style="text-align: right;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">7.50</td> </tr> <tr> <td>N/A</td> <td>Exacavtor with Long Stick</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">4.50</td> <td style="text-align: right;">4.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td style="text-align: right;">3.00</td> <td style="text-align: right;">5.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">7.50</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total operating hours to date: 788.50</td> <td style="text-align: right; border-top: 1px solid black;">Total 18.00</td> <td style="text-align: right; border-top: 1px solid black;">24.50</td> </tr> </tbody> </table>                            |                           |                                                                        |                    | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A       | Bull Dozer               | 1.00 | 7.50 | N/A       | Exacavtor with Long Stick | 8.50 | 0.00 | N/A       | Loader           | 4.50 | 4.00 | N/A       | Mixing Excavator     | 3.00 | 5.50 | N/A       | Mixing Loader | 1.00 | 7.50 | Total operating hours to date: 788.50 |  | Total 18.00 | 24.50 |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Description               | Idle<br>Hours                                                          | Operating<br>Hours |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Bull Dozer                | 1.00                                                                   | 7.50               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Exacavtor with Long Stick | 8.50                                                                   | 0.00               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Loader                    | 4.50                                                                   | 4.00               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Mixing Excavator          | 3.00                                                                   | 5.50               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Mixing Loader             | 1.00                                                                   | 7.50               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Total operating hours to date: 788.50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                           | Total 18.00                                                            | 24.50              |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br>No accidents reported today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |                                                                        |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           |                                                                        |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                           |                                                                        |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | DATE                      | SUPERINTENDENT'S INITIALS                                              | DATE               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |



|                                                                                     |                                                                                                       |                                          |             |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |                                                                                                       | REPORT NUMBER<br>874                     | Page 1 of 2 |
|                                                                                     |                                                                                                       | DATE<br>20 Sep 2012 - Thursday           |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |                                                                                                       | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             | WEATHER<br>Weather Caused No Delay<br>Temperature Min 45 °F, Max 68 °F; No Precipitation; 10 MPH Wind |                                          |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.  
 Moretrench - Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
 Stockpiling Excess Soils  
 Site Restoration / Demobilization

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Sovereign conducted QC inspections photographic documentation of barrier wall capping activities.

Barrier wall capping activities consisted of excavting to a depth of at least 2.5 feet below grade and at least 2 feet wide. Geotextile woven fabric placed in the trench and pinned down on sides and top every 20 feet and more often as needed. A 36 inch over-lab was used on seams. Following fabric placement 2 feet of low permability backfill was place atop of the fabric in the trench in 1 foot lifts. Each lift was compacted with the excavator bucket. At least 6 inches of sandy soil was placed atop the low permability backfill.

Backfill used was a 50/50 mix of fines/trench cutting and bentonite.

Backfill being excavated from the trench was stockpiled for drying purposes and to be used at a later time for backfill in capping activities.

**Did anything develop that may lead to a Change Order/Claim?**  
 No developments that may lead to a Change Order during the day.

**Were there any Delays in Work Progress today?**  
 No delays in work progress during the day.

**General Comments:**  
 Work Completed During the Day:

Sovereign: Provided project oversight and on-site QC of Moretrench. Conducted photo documentation of grading and barrier wall cap installation. Photograph IDs: 092012-01 through 092012-20

Moretrench: Milton CAT and Central Mass Crane on site and disassembled the long-stick and boom of the 375 CAT excavator. Long-stick and boom loaded onto a trailer and removed from site. Continued to spread out material to dry out excess slurry and soil with a dozer. Continued work on re-building of drainage swale. Completed barrier wall cap from station 0+00 to station 2+40 with use of CAT 329 excavator and loader.

Materials Brought on Site:

No new material brought on site during the day.

Equipment Brought on Site:

New bucket with teeth for use on CAT 329 Excavator.

Additional Notes:

No other major comments or conerns noted.

**Verbal Instructions given by Government:**  
 No verbal instructions given by the government during the day.

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           | REPORT NUMBER<br>874 <span style="float: right;">Page 2 of 2</span> |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------------------------------------------|--------------------|---------------|----------------------|------------------------|--------------------|-----------|--------------------------|------|------|-----------|---------------------------|------|------|-----------|------------------|------|------|-----------|----------------------|------|------|-----------|---------------|------|------|---------------------------------------|--|-------------|-------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           | DATE<br>20 Sep 2012 - Thursday                                      |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                            |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviued prior to start of work activties.<br><br>Reviewed lift plan with crane operator and Milton CAT workers prior to disassembly of the long-stick and boom.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">3.0</td> <td style="text-align: right;">25.0</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.5</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.5</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.5</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.5</td> </tr> <tr> <td colspan="2">Total hours worked to date: 3,198.8</td> <td style="text-align: right;">Total 7.0</td> <td style="text-align: right;">59.0</td> </tr> </tbody> </table> |                           |                                                                     |                    | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 3.0  | 25.0 | Moretrech | LABORERS                  | 1.0  | 8.5  | Moretrech | PROJECT ENGINEER | 1.0  | 8.5  | Moretrech | SUPER - CONSTRUCTION | 1.0  | 8.5  | Sovereign | SUPER - JOB   | 1.0  | 8.5  | Total hours worked to date: 3,198.8   |  | Total 7.0   | 59.0  |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Labor Classification      | Number of<br>Employees                                              | Hours<br>Worked    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | HEAVY-EQUIPMENT OPERATOR  | 3.0                                                                 | 25.0               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | LABORERS                  | 1.0                                                                 | 8.5                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | PROJECT ENGINEER          | 1.0                                                                 | 8.5                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | SUPER - CONSTRUCTION      | 1.0                                                                 | 8.5                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | SUPER - JOB               | 1.0                                                                 | 8.5                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Total hours worked to date: 3,198.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           | Total 7.0                                                           | 59.0               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>EQUIPMENT HOURS</b><br><b>The following equipment hours were Reported today:</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle<br/>Hours</th> <th style="text-align: right;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">8.00</td> </tr> <tr> <td>N/A</td> <td>Exacavtor with Long Stick</td> <td style="text-align: right;">9.00</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">9.00</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">8.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">8.00</td> </tr> <tr> <td colspan="2">Total operating hours to date: 812.50</td> <td style="text-align: right;">Total 21.00</td> <td style="text-align: right;">24.00</td> </tr> </tbody> </table>                            |                           |                                                                     |                    | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A       | Bull Dozer               | 1.00 | 8.00 | N/A       | Exacavtor with Long Stick | 9.00 | 0.00 | N/A       | Loader           | 9.00 | 0.00 | N/A       | Mixing Excavator     | 1.00 | 8.00 | N/A       | Mixing Loader | 1.00 | 8.00 | Total operating hours to date: 812.50 |  | Total 21.00 | 24.00 |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Description               | Idle<br>Hours                                                       | Operating<br>Hours |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Bull Dozer                | 1.00                                                                | 8.00               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Exacavtor with Long Stick | 9.00                                                                | 0.00               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Loader                    | 9.00                                                                | 0.00               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Mixing Excavator          | 1.00                                                                | 8.00               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Mixing Loader             | 1.00                                                                | 8.00               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Total operating hours to date: 812.50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           | Total 21.00                                                         | 24.00              |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>CONTRACTOR CERTIFICATION</b> <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | DATE                      | SUPERINTENDENT'S INITIALS                                           | DATE               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |

|                                                                                     |                                                                                                       |                                          |             |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |                                                                                                       | REPORT NUMBER<br>875                     | Page 1 of 2 |
|                                                                                     |                                                                                                       | DATE<br>21 Sep 2012 - Friday             |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |                                                                                                       | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             | WEATHER<br>Weather Caused No Delay<br>Temperature Min 48 °F, Max 70 °F; No Precipitation; 10 MPH Wind |                                          |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.  
 Moretrench - Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
 Stockpiling Excess Soils  
 Site Restoration / Demobilization

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Sovereign conducted QC inspections of barrier wall capping activities.

Barrier wall capping activities consisted of excavating to a depth of at least 2.5 feet below grade and at least 2 feet wide. Geotextile woven fabric placed in the trench and pinned down on sides and top every 20 feet and more often as needed. A 36 inch over-lap was used on seams. Following fabric placement 2 feet of low permeability backfill was placed atop of the fabric in the trench in 1 foot lifts. Each lift was compacted with the excavator bucket. At least 6 inches of sandy soil was placed atop the low permeability backfill.

Backfill used was a 50/50 mix of fines/trench cutting and bentonite.

Backfill being excavated from the trench was stockpiled for drying purposes and to be used at a later time for backfill in capping activities.

**Did anything develop that may lead to a Change Order/Claim?**  
 No developments that may lead to a Change Order during the day.

**Were there any Delays in Work Progress today?**  
 No delays in work progress during the day.

**General Comments:**  
 Work Completed During the Day:

Sovereign: Provided project oversight and on-site QC of Moretrench.

Moretrench: Continued to spread out material to dry out excess slurry and soil with a dozer. Completed re-building of drainage swale with existing stone on site. Completed barrier wall cap from station 2+40 to station 3+00 with use of CAT 329 excavator and loader. Continued finish grading. Miscellaneous site clean-up. Mixed a batch of low permeability cap backfill. Bentonite to be added the following work day.

Materials Brought on Site:

No new material brought on site during the day.

Equipment Brought on Site:

No additional equipment brought on site during the day.

Additional Notes:

No other major comments or concerns noted.

**Verbal Instructions given by Government:**  
 No verbal instructions given by the government during the day.

**Safety Inspection / Safety Meetings:**

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          | REPORT NUMBER<br>875 <span style="float: right;">Page 2 of 2</span> |                 |               |                      |                     |                 |           |                          |      |      |           |                          |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---------------------------------------------------------------------|-----------------|---------------|----------------------|---------------------|-----------------|-----------|--------------------------|------|------|-----------|--------------------------|------|------|-----------|------------------|------|------|-----------|----------------------|------|------|-----------|---------------|------|------|---------------------------------------|--|-------------|-------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                          | DATE<br>21 Sep 2012 - Friday                                        |                 |               |                      |                     |                 |           |                          |      |      |           |                          |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |                                                                     |                 |               |                      |                     |                 |           |                          |      |      |           |                          |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's reviewed prior to start of work activities.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                          |                                                                     |                 |               |                      |                     |                 |           |                          |      |      |           |                          |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                                                                     |                 |               |                      |                     |                 |           |                          |      |      |           |                          |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          |                                                                     |                 |               |                      |                     |                 |           |                          |      |      |           |                          |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |                                                                     |                 |               |                      |                     |                 |           |                          |      |      |           |                          |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                          |                                                                     |                 |               |                      |                     |                 |           |                          |      |      |           |                          |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                          |                                                                     |                 |               |                      |                     |                 |           |                          |      |      |           |                          |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of Employees</th> <th style="text-align: right;">Hours Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">3.0</td> <td style="text-align: right;">24.0</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total hours worked to date: 3,254.8</td> <td style="text-align: right; border-top: 1px solid black;">Total 7.0</td> <td style="text-align: right; border-top: 1px solid black;">56.0</td> </tr> </tbody> </table> |                          |                                                                     |                 | Employer      | Labor Classification | Number of Employees | Hours Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 3.0  | 24.0 | Moretrech | LABORERS                 | 1.0  | 8.0  | Moretrech | PROJECT ENGINEER | 1.0  | 8.0  | Moretrech | SUPER - CONSTRUCTION | 1.0  | 8.0  | Sovereign | SUPER - JOB   | 1.0  | 8.0  | Total hours worked to date: 3,254.8   |  | Total 7.0   | 56.0  |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Labor Classification     | Number of Employees                                                 | Hours Worked    |               |                      |                     |                 |           |                          |      |      |           |                          |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | HEAVY-EQUIPMENT OPERATOR | 3.0                                                                 | 24.0            |               |                      |                     |                 |           |                          |      |      |           |                          |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | LABORERS                 | 1.0                                                                 | 8.0             |               |                      |                     |                 |           |                          |      |      |           |                          |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | PROJECT ENGINEER         | 1.0                                                                 | 8.0             |               |                      |                     |                 |           |                          |      |      |           |                          |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | SUPER - CONSTRUCTION     | 1.0                                                                 | 8.0             |               |                      |                     |                 |           |                          |      |      |           |                          |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | SUPER - JOB              | 1.0                                                                 | 8.0             |               |                      |                     |                 |           |                          |      |      |           |                          |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Total hours worked to date: 3,254.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          | Total 7.0                                                           | 56.0            |               |                      |                     |                 |           |                          |      |      |           |                          |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>EQUIPMENT HOURS</b><br><b>The following equipment hours were Reported today:</b> <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle Hours</th> <th style="text-align: right;">Operating Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">7.50</td> </tr> <tr> <td>N/A</td> <td>Excavtor with Long Stick</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">7.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">7.50</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total operating hours to date: 835.00</td> <td style="text-align: right; border-top: 1px solid black;">Total 20.00</td> <td style="text-align: right; border-top: 1px solid black;">22.50</td> </tr> </tbody> </table>                             |                          |                                                                     |                 | Serial Number | Description          | Idle Hours          | Operating Hours | N/A       | Bull Dozer               | 1.00 | 7.50 | N/A       | Excavtor with Long Stick | 8.50 | 0.00 | N/A       | Loader           | 8.50 | 0.00 | N/A       | Mixing Excavator     | 1.00 | 7.50 | N/A       | Mixing Loader | 1.00 | 7.50 | Total operating hours to date: 835.00 |  | Total 20.00 | 22.50 |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Description              | Idle Hours                                                          | Operating Hours |               |                      |                     |                 |           |                          |      |      |           |                          |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Bull Dozer               | 1.00                                                                | 7.50            |               |                      |                     |                 |           |                          |      |      |           |                          |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Excavtor with Long Stick | 8.50                                                                | 0.00            |               |                      |                     |                 |           |                          |      |      |           |                          |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Loader                   | 8.50                                                                | 0.00            |               |                      |                     |                 |           |                          |      |      |           |                          |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Mixing Excavator         | 1.00                                                                | 7.50            |               |                      |                     |                 |           |                          |      |      |           |                          |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Mixing Loader            | 1.00                                                                | 7.50            |               |                      |                     |                 |           |                          |      |      |           |                          |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Total operating hours to date: 835.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                          | Total 20.00                                                         | 22.50           |               |                      |                     |                 |           |                          |      |      |           |                          |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                          |                                                                     |                 |               |                      |                     |                 |           |                          |      |      |           |                          |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                          |                                                                     |                 |               |                      |                     |                 |           |                          |      |      |           |                          |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>CONTRACTOR CERTIFICATION</b> <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          |                                                                     |                 |               |                      |                     |                 |           |                          |      |      |           |                          |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | DATE                     | SUPERINTENDENT'S INITIALS                                           | DATE            |               |                      |                     |                 |           |                          |      |      |           |                          |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |

|                                                                                     |                                                                                                      |                                          |             |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |                                                                                                      | REPORT NUMBER<br>878                     | Page 1 of 2 |
|                                                                                     |                                                                                                      | DATE<br>24 Sep 2012 - Monday             |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |                                                                                                      | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             | WEATHER<br>Weather Caused No Delay<br>Temperature Min 45 °F, Max 68 °F; No Precipitation; 5 MPH Wind |                                          |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.  
 Moretrench - Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
       Stockpiling Excess Soils  
       Site Restoration / Demobilization

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Sovereign conducted QC inspections of barrier wall capping activities.

Barrier wall capping activities consisted of excavting to a depth of at least 2.5 feet below grade and at least 2 feet wide. Geotextile woven fabric placed in the trench and pinned down on sides and top every 20 feet and more often as needed. A 36 inch over-lab was used on seams. Following fabric placement 2 feet of low permability backfill was place atop of the fabric in the trench in 1 foot lifts. Each lift was compacted with the excavator bucket. At least 6 inches of sandy soil was placed atop the low permability backfill.

Backfill used was a 50/50 mix of fines/trench cutting and bentonite.

Backfill being excavated from the trench was stockpiled for drying purposes and to be used at a later time for backfill in capping activities.

**Did anything develop that may lead to a Change Order/Claim?**  
 No developments that may lead to a Change Order during the day.

**Were there any Delays in Work Progress today?**  
 No delays in work progress during the day.

**General Comments:**  
 Work Completed During the Day:

Sovereign: Provided project oversight and on-site QC of Moretrench. Conduted photo documentation of capping activities. Photo IDs: 092412-01 through 092412-09

Moretrench: Continued to spread out material to dry out excess slurry and soil with a dozer. Completed barrier wall cap from station 3+00 to station 4+00 with use of CAT 329 excavator and loader. Continued finish grading. Mixed bentonite into cap backfill material that was prepared the previous work day. Miscellaneous site clean-up. Mined into exsisting stockpile with CAT 329 to accumalte sandy soil to be used as top soil instead of loam as requested by the USACE. Removed containment berms from station 4+50 to station 7+00 back to exsisting grade.

CAT 374 Excavator loaded onto a trailer for off-site removal the following day by Milton CAT/CJ Hauling.  
 Counter-weight for the CAT 374 Excavator loaded onto a trailer and removed from site by Milton CAT/CJ Hauling.

Materials Brought on Site:

No new material brought on site during the day.

Equipment Brought on Site:

No additional equipment brought on site during the day.

Additional Notes:

No other major comments or conerns noted.

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           | REPORT NUMBER<br>878 <span style="float: right;">Page 2 of 2</span> |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------------------------------------------|--------------------|---------------|----------------------|------------------------|--------------------|-----------|--------------------------|------|------|-----------|---------------------------|------|------|-----------|------------------|------|------|-----------|----------------------|------|------|-----------|---------------|------|------|---------------------------------------|--|-------------|-------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           | DATE<br>24 Sep 2012 - Monday                                        |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>Verbal Instructions given by Government:</b><br>No verbal instructions given by the government during the day.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviued prior to start of work activties.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">3.0</td> <td style="text-align: right;">24.0</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">9.5</td> </tr> <tr> <td colspan="2">Total hours worked to date: 3,312.3</td> <td style="text-align: right;">Total 7.0</td> <td style="text-align: right;">57.5</td> </tr> </tbody> </table> |                           |                                                                     |                    | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 3.0  | 24.0 | Moretrech | LABORERS                  | 1.0  | 8.0  | Moretrech | PROJECT ENGINEER | 1.0  | 8.0  | Moretrech | SUPER - CONSTRUCTION | 1.0  | 8.0  | Sovereign | SUPER - JOB   | 1.0  | 9.5  | Total hours worked to date: 3,312.3   |  | Total 7.0   | 57.5  |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Labor Classification      | Number of<br>Employees                                              | Hours<br>Worked    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | HEAVY-EQUIPMENT OPERATOR  | 3.0                                                                 | 24.0               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | LABORERS                  | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | PROJECT ENGINEER          | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | SUPER - CONSTRUCTION      | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | SUPER - JOB               | 1.0                                                                 | 9.5                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Total hours worked to date: 3,312.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           | Total 7.0                                                           | 57.5               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>EQUIPMENT HOURS</b><br><b>The following equipment hours were Reported today:</b> <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle<br/>Hours</th> <th style="text-align: right;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">7.50</td> </tr> <tr> <td>N/A</td> <td>Exacavtor with Long Stick</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">7.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">7.50</td> </tr> <tr> <td colspan="2">Total operating hours to date: 857.50</td> <td style="text-align: right;">Total 20.00</td> <td style="text-align: right;">22.50</td> </tr> </tbody> </table>                            |                           |                                                                     |                    | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A       | Bull Dozer               | 1.00 | 7.50 | N/A       | Exacavtor with Long Stick | 8.50 | 0.00 | N/A       | Loader           | 8.50 | 0.00 | N/A       | Mixing Excavator     | 1.00 | 7.50 | N/A       | Mixing Loader | 1.00 | 7.50 | Total operating hours to date: 857.50 |  | Total 20.00 | 22.50 |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Description               | Idle<br>Hours                                                       | Operating<br>Hours |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Bull Dozer                | 1.00                                                                | 7.50               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Exacavtor with Long Stick | 8.50                                                                | 0.00               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Loader                    | 8.50                                                                | 0.00               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Mixing Excavator          | 1.00                                                                | 7.50               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Mixing Loader             | 1.00                                                                | 7.50               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Total operating hours to date: 857.50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           | Total 20.00                                                         | 22.50              |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>CONTRACTOR CERTIFICATION</b> <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | DATE                      | SUPERINTENDENT'S INITIALS                                           | DATE               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |

|                                                                                     |                                                                                                       |                                          |             |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |                                                                                                       | REPORT NUMBER<br>879                     | Page 1 of 2 |
|                                                                                     |                                                                                                       | DATE<br>25 Sep 2012 - Tuesday            |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |                                                                                                       | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             | WEATHER<br>Weather Caused No Delay<br>Temperature Min 45 °F, Max 70 °F; No Precipitation; 15 MPH Wind |                                          |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.  
 Moretrench - Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
 Stockpiling Excess Soils  
 Site Restoration / Demobilization

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Soverign conducted QC inspections of barrier wall capping activites.

Barrier wall capping activites consisted of excavting to a depth 2 feet below the landfill liner and at least 2 feet wide. Geotextile woven fabric placed in the trench and pinned down every 20 feet and more often as needed. At least a 24 inch over-lab was used on seams. Following fabric placement 2 feet of low permability backfill was place atop of the fabric in the trench in 1 foot lifts. Each lift was compacted with the excavator bucket. The low permability backfill will be covered with new landfill line followed by a foot of drainage sand and sandy top soil to grade. Landfill liner repair will be conducted following the completion of the entire 2 foot low permability cap.

Backfill used was a 50/50 mix of fines/trench cutting and bentonite.

Backfill being excavated from the trench was stockpiled for drying purposes and to be used at a later time for backfill in capping activities.

**Did anything develop that may lead to a Change Order/Claim ?**  
 No developments that may lead to a Change Order during the day.

**Were there any Delays in Work Progress today?**  
 No delays in work progress during the day.

**General Comments:**  
 Work Completed During the Day:

Sovereign: Provided project oversight and on-site QC of Moretrench. Conduted photo documentation of capping activities. Photo IDs: 092512-01 through 092512-05

Moretrench: Continued to spread out material to dry out excess slurry and soil with a dozer. Completed barrier wall cap from station 4+20 to station 5+30 with use of CAT 329 excavator and loader. Continued finish grading. . Miscellaneous site clean-up.

CAT 374 Excavator removed from site by Milton CAT/CJ Hauling.

Materials Brought on Site:

No new material brought on site during the day.

Equipment Brought on Site:

No additional equipment brought on site during the day.

Additional Notes:

No other major comments or conerns noted.

**Verbal Instructions given by Government:**

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          | REPORT NUMBER<br>879                     |                           | Page 2 of 2 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|------------------------------------------|---------------------------|-------------|---------------|----------------------|---------------------|-----------------|-----------|--------------------------|------|------|-----------|----------|------|------|-----------|----------------------|------|------|-----------|---------------|------|------|---------------------------------------|--|-------------|-------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                          | DATE<br>25 Sep 2012 - Tuesday            |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| No verbal instructions given by the government during the day.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's reviewed prior to start of work activities.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of Employees</th> <th style="text-align: right;">Hours Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">3.0</td> <td style="text-align: right;">24.0</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td colspan="2">Total hours worked to date: 3,360.3</td> <td style="text-align: right;">Total 6.0</td> <td style="text-align: right;">48.0</td> </tr> </tbody> </table> |                          |                                          |                           |             | Employer      | Labor Classification | Number of Employees | Hours Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 3.0  | 24.0 | Moretrech | LABORERS | 1.0  | 8.0  | Moretrech | SUPER - CONSTRUCTION | 1.0  | 8.0  | Sovereign | SUPER - JOB   | 1.0  | 8.0  | Total hours worked to date: 3,360.3   |  | Total 6.0   | 48.0  |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Labor Classification     | Number of Employees                      | Hours Worked              |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | HEAVY-EQUIPMENT OPERATOR | 3.0                                      | 24.0                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | LABORERS                 | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | SUPER - CONSTRUCTION     | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | SUPER - JOB              | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Total hours worked to date: 3,360.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          | Total 6.0                                | 48.0                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>EQUIPMENT HOURS</b><br><b>The following equipment hours were Reported today:</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle Hours</th> <th style="text-align: right;">Operating Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">7.50</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">7.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">7.50</td> </tr> <tr> <td colspan="2">Total operating hours to date: 880.00</td> <td style="text-align: right;">Total 11.50</td> <td style="text-align: right;">22.50</td> </tr> </tbody> </table>                                 |                          |                                          |                           |             | Serial Number | Description          | Idle Hours          | Operating Hours | N/A       | Bull Dozer               | 1.00 | 7.50 | N/A       | Loader   | 8.50 | 0.00 | N/A       | Mixing Excavator     | 1.00 | 7.50 | N/A       | Mixing Loader | 1.00 | 7.50 | Total operating hours to date: 880.00 |  | Total 11.50 | 22.50 |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Description              | Idle Hours                               | Operating Hours           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Bull Dozer               | 1.00                                     | 7.50                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Loader                   | 8.50                                     | 0.00                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Mixing Excavator         | 1.00                                     | 7.50                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Mixing Loader            | 1.00                                     | 7.50                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Total operating hours to date: 880.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          | Total 11.50                              | 22.50                     |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>CONTRACTOR CERTIFICATION</b> <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                          | DATE                                     | SUPERINTENDENT'S INITIALS |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |



|                                                                                     |  |                                                                                                       |             |
|-------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |  | REPORT NUMBER<br>880                                                                                  | Page 1 of 2 |
|                                                                                     |  | DATE<br>26 Sep 2012 - Wednesday                                                                       |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |  | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                              |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             |  | WEATHER<br>Weather Caused No Delay<br>Temperature Min 45 °F, Max 70 °F; No Precipitation; 15 MPH Wind |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.  
 Moretrench - Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
 Stockpiling Excess Soils  
 Site Restoration / Demobilization

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Soverign conducted QC inspections of barrier wall capping activities.

Barrier wall capping activites consisted of excavting to a depth 2 feet below the landfill liner and at least 2 feet wide. Geotextile woven fabric placed in the trench and pinned down every 20 feet and more often as needed. At least a 24 inch over-lap was used on seams. Following fabric placement 2 feet of low permability backfill was place atop of the fabric in the trench in 1 foot lifts. Each lift was compacted with the excavator bucket. The low permability backfill will be covered with new landfill line followed by a foot of drainage sand and sandy top soil to grade. Landfill liner repair will be conducted following the completion of the entire 2 foot low permability cap.

Backfill used was a 50/50 mix of fines/trench cutting and bentonite.

Backfill being excavated from the trench was stockpiled for drying purposes and to be used at a later time for backfill in capping activities.

**Did anything develop that may lead to a Change Order/Claim ?**  
 No developments that may lead to a Change Order during the day.

**Were there any Delays in Work Progress today?**  
 No delays in work progress during the day.

**General Comments:**  
 Work Completed During the Day:

Sovereign: Provided project oversight and on-site QC of Moretrench. Conduted photo documentation of capping activities. Photo IDs: 092612-01 through 092612-06

Moretrench: Continued to spread out material to dry out excess slurry and soil with a dozer. Completed barrier wall cap from station 5+30 to station 8+50 and 4+00 to 4+20 with use of CAT 329 excavator and loader. Enitre barrier wall cap has been completed. Barrier wall cap extend approximately five feet beyond station 8+50. Continued finish grading. . Miscellaneous site clean-up.

Materials Brought on Site:

No new material brought on site during the day.

Equipment Brought on Site:

No additional equipment brought on site during the day.

Additional Notes:

No other major comments or conerns noted.

**Verbal Instructions given by Government:**

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                          | REPORT NUMBER<br>880                     |                           | Page 2 of 2 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|------------------------------------------|---------------------------|-------------|---------------|----------------------|---------------------|-----------------|-----------|--------------------------|------|------|-----------|----------|------|------|-----------|----------------------|------|------|-----------|---------------|------|------|---------------------------------------|--|-------------|-------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                          | DATE<br>26 Sep 2012 - Wednesday          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                          | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| No verbal instructions given by the government during the day.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's reviewed prior to start of work activities.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table border="1"> <thead> <tr> <th>Employer</th> <th>Labor Classification</th> <th>Number of Employees</th> <th>Hours Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td>3.0</td> <td>25.5</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td>1.0</td> <td>8.5</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td>1.0</td> <td>8.5</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td>1.0</td> <td>8.5</td> </tr> <tr> <td colspan="2">Total hours worked to date: 3,411.3</td> <td>Total 6.0</td> <td>51.0</td> </tr> </tbody> </table> |                          |                                          |                           |             | Employer      | Labor Classification | Number of Employees | Hours Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 3.0  | 25.5 | Moretrech | LABORERS | 1.0  | 8.5  | Moretrech | SUPER - CONSTRUCTION | 1.0  | 8.5  | Sovereign | SUPER - JOB   | 1.0  | 8.5  | Total hours worked to date: 3,411.3   |  | Total 6.0   | 51.0  |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Labor Classification     | Number of Employees                      | Hours Worked              |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | HEAVY-EQUIPMENT OPERATOR | 3.0                                      | 25.5                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | LABORERS                 | 1.0                                      | 8.5                       |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | SUPER - CONSTRUCTION     | 1.0                                      | 8.5                       |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | SUPER - JOB              | 1.0                                      | 8.5                       |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Total hours worked to date: 3,411.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                          | Total 6.0                                | 51.0                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>EQUIPMENT HOURS</b><br><b>The following equipment hours were Reported today:</b> <table border="1"> <thead> <tr> <th>Serial Number</th> <th>Description</th> <th>Idle Hours</th> <th>Operating Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td>1.00</td> <td>7.50</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td>8.50</td> <td>0.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td>1.00</td> <td>7.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td>1.00</td> <td>7.50</td> </tr> <tr> <td colspan="2">Total operating hours to date: 902.50</td> <td>Total 11.50</td> <td>22.50</td> </tr> </tbody> </table>                                 |                          |                                          |                           |             | Serial Number | Description          | Idle Hours          | Operating Hours | N/A       | Bull Dozer               | 1.00 | 7.50 | N/A       | Loader   | 8.50 | 0.00 | N/A       | Mixing Excavator     | 1.00 | 7.50 | N/A       | Mixing Loader | 1.00 | 7.50 | Total operating hours to date: 902.50 |  | Total 11.50 | 22.50 |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Description              | Idle Hours                               | Operating Hours           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Bull Dozer               | 1.00                                     | 7.50                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Loader                   | 8.50                                     | 0.00                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Mixing Excavator         | 1.00                                     | 7.50                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Mixing Loader            | 1.00                                     | 7.50                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Total operating hours to date: 902.50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                          | Total 11.50                              | 22.50                     |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <div style="height: 100px;"></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>CONTRACTOR CERTIFICATION</b> <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                         |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          | DATE                                     | SUPERINTENDENT'S INITIALS |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |

|                                                                                     |                                                                                                       |                                          |             |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |                                                                                                       | REPORT NUMBER<br>881                     | Page 1 of 2 |
|                                                                                     |                                                                                                       | DATE<br>27 Sep 2012 - Thursday           |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |                                                                                                       | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             | WEATHER<br>Weather Caused No Delay<br>Temperature Min 50 °F, Max 65 °F; No Precipitation; 10 MPH Wind |                                          |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.  
 Moretrench - Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
 Stockpiling Excess Soils  
 Site Restoration / Demobilization

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Initial Inspection held for Site Restoration / Demobilization during the morning.

Soverign conducted QC inspections of landfill liner exposing activites conducted by Moretrench.  
 Only minimal damage to the landfill liner on each side of the barrier wall trench was observed.

Photo documentation conducted by Sovereign.

**Did anything develop that may lead to a Change Order/Claim ?**  
 No developments that may lead to a Change Order during the day.

**Were there any Delays in Work Progress today?**  
 No delays in work progress during the day.

**General Comments:**  
 Work Completed During the Day:

Sovereign: Provided project oversight and on-site QC of Moretrench. Conduted photo documentation of capping activities. Photo IDs: 092612-01 through 092612-06

Moretrench: Continued to spread out material to dry out excess slurry and soil with a dozer. Completed barrier wall cap from station 5+30 to station 8+50 and 4+00 to 4+20 with use of CAT 329 excavator and loader. Enitre barrier wall cap has been completed. Barrier wall cap extend approximately five feet beyond station 8+50. Continued finish grading. . Miscellaneous site clean-up. Began exposing landfill liner along trench alignment starting at station 8+50 and reaching station 7+00 by the end of the day.

Materials Brought on Site:

No new material brought on site during the day.

Equipment Brought on Site:

No additional equipment brought on site during the day.

Additional Notes:

Randy LeCuyer requested that the specification on the glue material to be used on the landfill liner repair be added to the landfill liner repair submittal.

**Verbal Instructions given by Government:**  
 Randy LeCuyer requested that the specification on the glue material to be used on the landfill liner repair be added to the landfill liner repair submittal.

Ellen Iorio (USACE Project) asked if another change to the seed mix could be made following correspondence from Mike Penkno (USACE

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                          | REPORT NUMBER<br>881 <span style="float: right;">Page 2 of 2</span> |                 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---------------------------------------------------------------------|-----------------|---------------|----------------------|---------------------|-----------------|-----------|--------------------------|------|------|-----------|----------|------|------|-----------|----------------------|------|------|-----------|---------------|------|------|---------------------------------------|--|-------------|-------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          | DATE<br>27 Sep 2012 - Thursday                                      |                 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                          |                                                                     |                 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Ecologist) noting the NHESP would like to remove Lance-leaved coreopsis from the warm season seed mix to be used on the site. Moretrench and Sovereign are looking into the request.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          |                                                                     |                 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's reviewed prior to start of work activities.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          |                                                                     |                 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory inspections were held today</b><br><b>An initial inspection was held today for the following feature:</b><br>Site Restoration / Demob.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                          |                                                                     |                 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                          |                                                                     |                 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                          |                                                                     |                 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |                                                                     |                 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                          |                                                                     |                 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of Employees</th> <th style="text-align: right;">Hours Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">3.0</td> <td style="text-align: right;">24.0</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total hours worked to date: 3,459.3</td> <td style="text-align: right; border-top: 1px solid black;">Total 6.0</td> <td style="text-align: right; border-top: 1px solid black;">48.0</td> </tr> </tbody> </table> |                          |                                                                     |                 | Employer      | Labor Classification | Number of Employees | Hours Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 3.0  | 24.0 | Moretrech | LABORERS | 1.0  | 8.0  | Moretrech | SUPER - CONSTRUCTION | 1.0  | 8.0  | Sovereign | SUPER - JOB   | 1.0  | 8.0  | Total hours worked to date: 3,459.3   |  | Total 6.0   | 48.0  |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Labor Classification     | Number of Employees                                                 | Hours Worked    |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | HEAVY-EQUIPMENT OPERATOR | 3.0                                                                 | 24.0            |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | LABORERS                 | 1.0                                                                 | 8.0             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | SUPER - CONSTRUCTION     | 1.0                                                                 | 8.0             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | SUPER - JOB              | 1.0                                                                 | 8.0             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Total hours worked to date: 3,459.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                          | Total 6.0                                                           | 48.0            |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>EQUIPMENT HOURS</b><br><b>The following equipment hours were Reported today:</b> <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle Hours</th> <th style="text-align: right;">Operating Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">7.50</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">7.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">7.50</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total operating hours to date: 925.00</td> <td style="text-align: right; border-top: 1px solid black;">Total 11.50</td> <td style="text-align: right; border-top: 1px solid black;">22.50</td> </tr> </tbody> </table>                                 |                          |                                                                     |                 | Serial Number | Description          | Idle Hours          | Operating Hours | N/A       | Bull Dozer               | 1.00 | 7.50 | N/A       | Loader   | 8.50 | 0.00 | N/A       | Mixing Excavator     | 1.00 | 7.50 | N/A       | Mixing Loader | 1.00 | 7.50 | Total operating hours to date: 925.00 |  | Total 11.50 | 22.50 |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Description              | Idle Hours                                                          | Operating Hours |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Bull Dozer               | 1.00                                                                | 7.50            |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Loader                   | 8.50                                                                | 0.00            |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Mixing Excavator         | 1.00                                                                | 7.50            |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Mixing Loader            | 1.00                                                                | 7.50            |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Total operating hours to date: 925.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                          | Total 11.50                                                         | 22.50           |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          |                                                                     |                 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          |                                                                     |                 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>CONTRACTOR CERTIFICATION</b> <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                          |                                                                     |                 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | DATE                     | SUPERINTENDENT'S INITIALS                                           | DATE            |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                          |                                          |             |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                          | REPORT NUMBER<br>882                     | Page 1 of 2 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                          | DATE<br>28 Sep 2012 - Friday             |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                          | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | WEATHER<br>Weather Caused No Delay<br>Temperature Min 50 °F, Max 60 °F; 0.2 IN Precipitation; 5 MPH Wind |                                          |             |
| <b>QC NARRATIVES</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                          |                                          |             |
| <b>Contractor/Subcontractor &amp; Area of Responsibility for work:</b><br>Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.<br>Moretrench - Barrier Wall Construction Contractor                                                                                                                                                                                                                                                                                                                                      |                                                                                                          |                                          |             |
| <b>Activities in Progress (List by Activity Number)</b><br>DFW: Soil-Bentonite Wall Construction<br>Stockpiling Excess Soils<br>Site Restoration / Demobilization                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                          |                                          |             |
| <b>Quality Control Inspections and Activities (List by Feature of Work)</b><br>Sovereign conducted QC inspections of landfill liner exposing activites conducted by Moretrench.<br>Only minimal damage to the landfill liner on each side of the barrier wall trench was observed.                                                                                                                                                                                                                                                                       |                                                                                                          |                                          |             |
| <b>Did anything develop that may lead to a Change Order/Claim ?</b><br>No developments that may lead to a Change Order during the day.                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                          |                                          |             |
| <b>Were there any Delays in Work Progress today?</b><br>No delays in work progress during the day.                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                          |                                          |             |
| <b>General Comments:</b><br>Work Completed During the Day:<br><br>Sovereign: Provided project oversight and on-site QC of Moretrench.<br><br>Moretrench: Miscellaneous site clean-up. Continued to expose landfill liner along trench alignment starting at station 7+00 and reaching station 6+00 by the end of the day.<br><br>Materials Brought on Site:<br><br>No new material brought on site during the day.<br><br>Equipment Brought on Site:<br><br>No additional equipment brought on site during the day.<br><br>Additional Notes:<br><br>None |                                                                                                          |                                          |             |
| <b>Verbal Instructions given by Government:</b><br>No verbal instructions given during the day.                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                          |                                          |             |
| <b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviued prior to start of work activties.                                                                                                                                                                                                                                                                                                                                                             |                                                                                                          |                                          |             |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                          |                                          |             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                          |                                          |             |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                          | REPORT NUMBER<br>882 <span style="float: right;">Page 2 of 2</span> |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---------------------------------------------------------------------|--------------------|---------------|----------------------|------------------------|--------------------|-----------|--------------------------|------|------|-----------|----------|------|------|-----------|----------------------|------|------|-----------|---------------|------|------|---------------------------------------|--|-------------|-------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          | DATE<br>28 Sep 2012 - Friday                                        |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>ACTIVITY START/FINISH</b><br>No activities were started or finished today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                            |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>QC REQUIREMENTS</b><br>No QC requirements were completed today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br>No QC Deficiency items were issued today<br>No Deficiency items were corrected today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br>No contractors had their first or last day on site today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>LABOR HOURS</b><br>The following labor hours were Reported today: <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">2.0</td> <td style="text-align: right;">16.0</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total hours worked to date: 3,499.3</td> <td style="text-align: right; border-top: 1px solid black;">Total 5.0</td> <td style="text-align: right; border-top: 1px solid black;">40.0</td> </tr> </tbody> </table> |                          |                                                                     |                    | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 2.0  | 16.0 | Moretrech | LABORERS | 1.0  | 8.0  | Moretrech | SUPER - CONSTRUCTION | 1.0  | 8.0  | Sovereign | SUPER - JOB   | 1.0  | 8.0  | Total hours worked to date: 3,499.3   |  | Total 5.0   | 40.0  |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Labor Classification     | Number of<br>Employees                                              | Hours<br>Worked    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | HEAVY-EQUIPMENT OPERATOR | 2.0                                                                 | 16.0               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | LABORERS                 | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | SUPER - CONSTRUCTION     | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | SUPER - JOB              | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Total hours worked to date: 3,499.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                          | Total 5.0                                                           | 40.0               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>EQUIPMENT HOURS</b><br>The following equipment hours were Reported today: <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle<br/>Hours</th> <th style="text-align: right;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td style="text-align: right;">4.00</td> <td style="text-align: right;">4.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">7.50</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total operating hours to date: 937.00</td> <td style="text-align: right; border-top: 1px solid black;">Total 22.00</td> <td style="text-align: right; border-top: 1px solid black;">12.00</td> </tr> </tbody> </table>                                 |                          |                                                                     |                    | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A       | Bull Dozer               | 8.50 | 0.00 | N/A       | Loader   | 8.50 | 0.00 | N/A       | Mixing Excavator     | 4.00 | 4.50 | N/A       | Mixing Loader | 1.00 | 7.50 | Total operating hours to date: 937.00 |  | Total 22.00 | 12.00 |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Description              | Idle<br>Hours                                                       | Operating<br>Hours |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Bull Dozer               | 8.50                                                                | 0.00               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Loader                   | 8.50                                                                | 0.00               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Mixing Excavator         | 4.00                                                                | 4.50               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Mixing Loader            | 1.00                                                                | 7.50               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Total operating hours to date: 937.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          | Total 22.00                                                         | 12.00              |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br>No accidents reported today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | DATE                     | SUPERINTENDENT'S INITIALS                                           | DATE               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |

|                                                                                     |                                                                                                       |                                          |             |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |                                                                                                       | REPORT NUMBER<br>885                     | Page 1 of 2 |
|                                                                                     |                                                                                                       | DATE<br>01 Oct 2012 - Monday             |             |
| PROJECT<br>Shepley's Landfill, Devens Cutoff Wall                                   |                                                                                                       | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             | WEATHER<br>Weather Caused No Delay<br>Temperature Min 50 °F, Max 60 °F; No Precipitation; 10 MPH Wind |                                          |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.  
 Moretrench - Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
 Stockpiling Excess Soils  
 Site Restoration / Demobilization

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Sovereign conducted QC inspections of landfill liner exposing activities conducted by Moretrench.  
 Only minimal damage to the landfill liner on each side of the barrier wall trench was observed.

Photo documentation conducted by Sovereign.

**Did anything develop that may lead to a Change Order/Claim?**  
 No developments that may lead to a Change Order during the day.

**Were there any Delays in Work Progress today?**  
 No delays in work progress during the day.

**General Comments:**  
 Work Completed During the Day:

Sovereign: Provided project oversight and on-site QC of Moretrench. Conducted photo documentation of capping activities. Photo IDs: 100112-01 through 100112-03

Moretrench: Miscellaneous site clean-up. Continued to expose landfill liner along trench alignment starting at station 6+00 and reaching station 4+80 by the end of the day.

Materials Brought on Site:

No new material brought on site during the day.

Equipment Brought on Site:

No additional equipment brought on site during the day.

Additional Notes:

A sample of the soil from the soil/waste pile located in the staging area was collected by Sovereign during the day. The sample was submitted to Accutest Laboratories for analysis of all COMM-97 Landfill Table 1 requirements.

**Verbal Instructions given by Government:**  
 Through conversations with between Sovereign, USACE (Ellen Iorio), and BRAC Env. Coordinator (Robert Simone) Sovereign was instructed to collect a sample of the soil from the soil/waste pile located in the staging area and have it analyzed for all COMM-97 Landfill Table 1 requirements.

**Safety Inspection / Safety Meetings:**  
 Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's reviewed prior to start of work activities.

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             | REPORT NUMBER<br>885 <span style="float: right;">Page 2 of 2</span> |                        |                      |                             |                            |                        |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|---------------------------------------------------------------------|------------------------|----------------------|-----------------------------|----------------------------|------------------------|-----------|--------------------------|------|------|-----------|----------|------|------|-----------|----------------------|------|------|-----------|---------------|------|------|---------------------------------------|--|-------------|-------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                             | DATE<br>01 Oct 2012 - Monday                                        |                        |                      |                             |                            |                        |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                             | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                            |                        |                      |                             |                            |                        |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |                                                                     |                        |                      |                             |                            |                        |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                             |                                                                     |                        |                      |                             |                            |                        |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                             |                                                                     |                        |                      |                             |                            |                        |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                             |                                                                     |                        |                      |                             |                            |                        |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;"><u>Employer</u></th> <th style="text-align: left;"><u>Labor Classification</u></th> <th style="text-align: right;"><u>Number of Employees</u></th> <th style="text-align: right;"><u>Hours Worked</u></th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">2.0</td> <td style="text-align: right;">16.0</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total hours worked to date: 3,539.3</td> <td style="text-align: right; border-top: 1px solid black;">Total 5.0</td> <td style="text-align: right; border-top: 1px solid black;">40.0</td> </tr> </tbody> </table> |                             |                                                                     |                        | <u>Employer</u>      | <u>Labor Classification</u> | <u>Number of Employees</u> | <u>Hours Worked</u>    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 2.0  | 16.0 | Moretrech | LABORERS | 1.0  | 8.0  | Moretrech | SUPER - CONSTRUCTION | 1.0  | 8.0  | Sovereign | SUPER - JOB   | 1.0  | 8.0  | Total hours worked to date: 3,539.3   |  | Total 5.0   | 40.0  |
| <u>Employer</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <u>Labor Classification</u> | <u>Number of Employees</u>                                          | <u>Hours Worked</u>    |                      |                             |                            |                        |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | HEAVY-EQUIPMENT OPERATOR    | 2.0                                                                 | 16.0                   |                      |                             |                            |                        |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | LABORERS                    | 1.0                                                                 | 8.0                    |                      |                             |                            |                        |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | SUPER - CONSTRUCTION        | 1.0                                                                 | 8.0                    |                      |                             |                            |                        |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | SUPER - JOB                 | 1.0                                                                 | 8.0                    |                      |                             |                            |                        |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Total hours worked to date: 3,539.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             | Total 5.0                                                           | 40.0                   |                      |                             |                            |                        |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>EQUIPMENT HOURS</b><br><b>The following equipment hours were Reported today:</b> <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;"><u>Serial Number</u></th> <th style="text-align: left;"><u>Description</u></th> <th style="text-align: right;"><u>Idle Hours</u></th> <th style="text-align: right;"><u>Operating Hours</u></th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td style="text-align: right;">4.00</td> <td style="text-align: right;">4.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">7.50</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total operating hours to date: 949.00</td> <td style="text-align: right; border-top: 1px solid black;">Total 22.00</td> <td style="text-align: right; border-top: 1px solid black;">12.00</td> </tr> </tbody> </table>                                 |                             |                                                                     |                        | <u>Serial Number</u> | <u>Description</u>          | <u>Idle Hours</u>          | <u>Operating Hours</u> | N/A       | Bull Dozer               | 8.50 | 0.00 | N/A       | Loader   | 8.50 | 0.00 | N/A       | Mixing Excavator     | 4.00 | 4.50 | N/A       | Mixing Loader | 1.00 | 7.50 | Total operating hours to date: 949.00 |  | Total 22.00 | 12.00 |
| <u>Serial Number</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <u>Description</u>          | <u>Idle Hours</u>                                                   | <u>Operating Hours</u> |                      |                             |                            |                        |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Bull Dozer                  | 8.50                                                                | 0.00                   |                      |                             |                            |                        |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Loader                      | 8.50                                                                | 0.00                   |                      |                             |                            |                        |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Mixing Excavator            | 4.00                                                                | 4.50                   |                      |                             |                            |                        |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Mixing Loader               | 1.00                                                                | 7.50                   |                      |                             |                            |                        |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Total operating hours to date: 949.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                             | Total 22.00                                                         | 12.00                  |                      |                             |                            |                        |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                             |                                                                     |                        |                      |                             |                            |                        |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                             |                                                                     |                        |                      |                             |                            |                        |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>CONTRACTOR CERTIFICATION</b> <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                             |                                                                     |                        |                      |                             |                            |                        |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | DATE                        | SUPERINTENDENT'S INITIALS                                           | DATE                   |                      |                             |                            |                        |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |



|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                      |                                          |             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                      | REPORT NUMBER<br>886                     | Page 1 of 2 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                      | DATE<br>02 Oct 2012 - Tuesday            |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                      | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | WEATHER<br>Weather Caused No Delay<br>Temperature Min 50 °F, Max 60 °F; No Precipitation; 5 MPH Wind |                                          |             |
| <b>QC NARRATIVES</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                      |                                          |             |
| <b>Contractor/Subcontractor &amp; Area of Responsibility for work:</b><br>Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.<br>Moretrench - Barrier Wall Construction Contractor                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                      |                                          |             |
| <b>Activities in Progress (List by Activity Number)</b><br>DFW: Soil-Bentonite Wall Construction<br>Stockpiling Excess Soils<br>Site Restoration / Demobilization                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                      |                                          |             |
| <b>Quality Control Inspections and Activities (List by Feature of Work)</b><br>Sovereign conducted QC inspections of landfill liner exposing activites conducted by Moretrench.<br>Only minimal damage to the landfill liner on each side of the barrier wall trench was observed.                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                      |                                          |             |
| <b>Did anything develop that may lead to a Change Order/Claim ?</b><br>No developments that may lead to a Change Order during the day.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                      |                                          |             |
| <b>Were there any Delays in Work Progress today?</b><br>No delays in work progress during the day.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                      |                                          |             |
| <b>General Comments:</b><br>Work Completed During the Day:<br><br>Sovereign: Provided project oversight and on-site QC of Moretrench.<br><br>Moretrench: Miscellaneous site clean-up. Completed exposing landfill liner along trench alignment starting at station 4+80 to station 4+15 which is where the landfill liner started. Also began cleaning exposed parts of liner in prepartation for repairs to be made.<br><br>Materials Brought on Site:<br><br>No new material brought on site during the day.<br><br>Equipment Brought on Site:<br><br>No additional equipment brought on site during the day.<br><br>Additional Notes:<br><br>None. |                                                                                                      |                                          |             |
| <b>Verbal Instructions given by Government:</b><br>Sovereign was given verbal approval by USACE (Zach Mothershed) to mobilize equipment necessary to complete the task of swifting the waste/soil pile to remove all trash less than 1 inch and create two sperate piles, one of trash and the other of soil.                                                                                                                                                                                                                                                                                                                                         |                                                                                                      |                                          |             |
| <b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviuewed prior to start of work activties.                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                      |                                          |             |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                      |                                          |             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                      |                                          |             |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                          | REPORT NUMBER<br>886                     |                           | Page 2 of 2 |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|------------------------------------------|---------------------------|-------------|---------------|----------------------|------------------------|--------------------|-----------|--------------------------|------|------|-----------|----------|------|------|-----------|----------------------|------|------|-----------|---------------|------|------|---------------------------------------|--|-------------|-------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                          | DATE<br>02 Oct 2012 - Tuesday            |                           |             |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                          | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |                           |             |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>ACTIVITY START/FINISH</b><br>No activities were started or finished today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                          |                                          |                           |             |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>QC REQUIREMENTS</b><br>No QC requirements were completed today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          |                                          |                           |             |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br>No QC Deficiency items were issued today<br>No Deficiency items were corrected today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                          |                                          |                           |             |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br>No contractors had their first or last day on site today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                          |                                          |                           |             |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>LABOR HOURS</b><br>The following labor hours were Reported today: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">2.0</td> <td style="text-align: right;">16.0</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td colspan="2">Total hours worked to date: 3,579.3</td> <td style="text-align: right;">Total 5.0</td> <td style="text-align: right;">40.0</td> </tr> </tbody> </table> |                          |                                          |                           |             | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 2.0  | 16.0 | Moretrech | LABORERS | 1.0  | 8.0  | Moretrech | SUPER - CONSTRUCTION | 1.0  | 8.0  | Sovereign | SUPER - JOB   | 1.0  | 8.0  | Total hours worked to date: 3,579.3   |  | Total 5.0   | 40.0  |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Labor Classification     | Number of<br>Employees                   | Hours<br>Worked           |             |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | HEAVY-EQUIPMENT OPERATOR | 2.0                                      | 16.0                      |             |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | LABORERS                 | 1.0                                      | 8.0                       |             |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | SUPER - CONSTRUCTION     | 1.0                                      | 8.0                       |             |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | SUPER - JOB              | 1.0                                      | 8.0                       |             |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Total hours worked to date: 3,579.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                          | Total 5.0                                | 40.0                      |             |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>EQUIPMENT HOURS</b><br>The following equipment hours were Reported today: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle<br/>Hours</th> <th style="text-align: right;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td style="text-align: right;">4.00</td> <td style="text-align: right;">4.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td style="text-align: right;">2.00</td> <td style="text-align: right;">6.50</td> </tr> <tr> <td colspan="2">Total operating hours to date: 960.00</td> <td style="text-align: right;">Total 23.00</td> <td style="text-align: right;">11.00</td> </tr> </tbody> </table>                                 |                          |                                          |                           |             | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A       | Bull Dozer               | 8.50 | 0.00 | N/A       | Loader   | 8.50 | 0.00 | N/A       | Mixing Excavator     | 4.00 | 4.50 | N/A       | Mixing Loader | 2.00 | 6.50 | Total operating hours to date: 960.00 |  | Total 23.00 | 11.00 |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Description              | Idle<br>Hours                            | Operating<br>Hours        |             |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Bull Dozer               | 8.50                                     | 0.00                      |             |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Loader                   | 8.50                                     | 0.00                      |             |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Mixing Excavator         | 4.00                                     | 4.50                      |             |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Mixing Loader            | 2.00                                     | 6.50                      |             |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Total operating hours to date: 960.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          | Total 23.00                              | 11.00                     |             |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br>No accidents reported today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                          |                                          |                           |             |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                                          |                           |             |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          |                                          |                           |             |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                          | DATE                                     | SUPERINTENDENT'S INITIALS |             |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                                          |                           |             |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                    |                                          |             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                    | REPORT NUMBER<br>887                     | Page 1 of 2 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                    | DATE<br>03 Oct 2012 - Wednesday          |             |
| PROJECT<br>Shepley's Landfill, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                    | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                        | WEATHER<br>Weather Caused Non-Critical Delay<br>Temperature Min 50 °F, Max 60 °F; 0.2 IN Precipitation; 5 MPH Wind |                                          |             |
| <b>QC NARRATIVES</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                    |                                          |             |
| <b>Contractor/Subcontractor &amp; Area of Responsibility for work:</b><br>Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.<br>Moretrench - Barrier Wall Construction Contractor                                                                                                                                                                                                                                                            |                                                                                                                    |                                          |             |
| <b>Activities in Progress (List by Activity Number)</b><br>DFW: Soil-Bentonite Wall Construction<br>Stockpiling Excess Soils<br>Site Restoration / Demobilization                                                                                                                                                                                                                                                                                                              |                                                                                                                    |                                          |             |
| <b>Quality Control Inspections and Activities (List by Feature of Work)</b><br>Preparatory Meeting held for D.F.W: Repair of Landfill Liner                                                                                                                                                                                                                                                                                                                                    |                                                                                                                    |                                          |             |
| <b>Did anything develop that may lead to a Change Order/Claim?</b><br>No developments that may lead to a Change Order during the day.                                                                                                                                                                                                                                                                                                                                          |                                                                                                                    |                                          |             |
| <b>Were there any Delays in Work Progress today?</b><br>Wet weather delayed the start of landfill liner repairs.                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                    |                                          |             |
| <b>General Comments:</b><br>Work Completed During the Day:<br><br>Sovereign: Provided project oversight and on-site QC of Moretrench.<br><br>Moretrench: Completed miscellaneous site clean-up as wet weather delayed start of landfill liner repair.<br><br>Materials Brought on Site:<br><br>Landfill liner PVC material for repairs.<br><br>Equipment Brought on Site:<br><br>No additional equipment brought on site during the day.<br><br>Additional Notes:<br><br>None. |                                                                                                                    |                                          |             |
| <b>Verbal Instructions given by Government:</b><br>No verbal instruction given during the day by the government.                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                    |                                          |             |
| <b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's reviewed prior to start of work activities.                                                                                                                                                                                                                                                                                |                                                                                                                    |                                          |             |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><br><b>A preparatory inspection was held today for the following feature:</b><br>Repair of Landfill Liner<br><br><b>No initial inspections were held today</b>                                                                                                                                                                                                                            |                                                                                                                    |                                          |             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                    |                                          |             |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                          | REPORT NUMBER<br>887 <span style="float: right;">Page 2 of 2</span> |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---------------------------------------------------------------------|--------------------|---------------|----------------------|------------------------|--------------------|-----------|--------------------------|------|------|-----------|----------|------|------|-----------|----------------------|------|------|-----------|---------------|------|------|---------------------------------------|--|-------------|------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          | DATE<br>03 Oct 2012 - Wednesday                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |      |
| <b>ACTIVITY START/FINISH</b><br>No activities were started or finished today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                            |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |      |
| <b>QC REQUIREMENTS</b><br>No QC requirements were completed today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |      |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br>No QC Deficiency items were issued today<br>No Deficiency items were corrected today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |      |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br>No contractors had their first or last day on site today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |      |
| <b>LABOR HOURS</b><br>The following labor hours were Reported today: <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">2.0</td> <td style="text-align: right;">24.0</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total hours worked to date: 3,627.3</td> <td style="text-align: right; border-top: 1px solid black;">Total 5.0</td> <td style="text-align: right; border-top: 1px solid black;">48.0</td> </tr> </tbody> </table> |                          |                                                                     |                    | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 2.0  | 24.0 | Moretrech | LABORERS | 1.0  | 8.0  | Moretrech | SUPER - CONSTRUCTION | 1.0  | 8.0  | Sovereign | SUPER - JOB   | 1.0  | 8.0  | Total hours worked to date: 3,627.3   |  | Total 5.0   | 48.0 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Labor Classification     | Number of<br>Employees                                              | Hours<br>Worked    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | HEAVY-EQUIPMENT OPERATOR | 2.0                                                                 | 24.0               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | LABORERS                 | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | SUPER - CONSTRUCTION     | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | SUPER - JOB              | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |      |
| Total hours worked to date: 3,627.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                          | Total 5.0                                                           | 48.0               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |      |
| <b>EQUIPMENT HOURS</b><br>The following equipment hours were Reported today: <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle<br/>Hours</th> <th style="text-align: right;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td style="text-align: right;">6.50</td> <td style="text-align: right;">2.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td style="text-align: right;">6.50</td> <td style="text-align: right;">2.00</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total operating hours to date: 964.00</td> <td style="text-align: right; border-top: 1px solid black;">Total 30.00</td> <td style="text-align: right; border-top: 1px solid black;">4.00</td> </tr> </tbody> </table>                                  |                          |                                                                     |                    | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A       | Bull Dozer               | 8.50 | 0.00 | N/A       | Loader   | 8.50 | 0.00 | N/A       | Mixing Excavator     | 6.50 | 2.00 | N/A       | Mixing Loader | 6.50 | 2.00 | Total operating hours to date: 964.00 |  | Total 30.00 | 4.00 |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Description              | Idle<br>Hours                                                       | Operating<br>Hours |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Bull Dozer               | 8.50                                                                | 0.00               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Loader                   | 8.50                                                                | 0.00               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Mixing Excavator         | 6.50                                                                | 2.00               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Mixing Loader            | 6.50                                                                | 2.00               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |      |
| Total operating hours to date: 964.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          | Total 30.00                                                         | 4.00               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |      |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br>No accidents reported today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |      |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |      |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | DATE                     | SUPERINTENDENT'S INITIALS                                           | DATE               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |      |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                     |                                          |             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                     | REPORT NUMBER<br>888                     | Page 1 of 2 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                     | DATE<br>04 Oct 2012 - Thursday           |             |
| PROJECT<br>Shepley's Landfill, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                     | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | WEATHER<br>Weather Caused Non-Critical Delay<br>Temperature Min 50 °F, Max 62 °F; 0.01 IN Precipitation; 5 MPH Wind |                                          |             |
| <b>QC NARRATIVES</b><br><br><b>Contractor/Subcontractor &amp; Area of Responsibility for work:</b><br>Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.<br>Moretrench - Barrier Wall Construction Contractor<br><br><b>Activities in Progress (List by Activity Number)</b><br>DFW: Repair of Landfill Liner<br>Stockpiling Excess Soils<br>Site Restoration / Demobilization<br><br><b>Quality Control Inspections and Activities (List by Feature of Work)</b><br>Sovereign conduct QC inspection of landfill liner cleaning activities.<br><br><b>Did anything develop that may lead to a Change Order/Claim?</b><br>No developments that may lead to a Change Order during the day.<br><br><b>Were there any Delays in Work Progress today?</b><br>Wet weather delayed the start of landfill liner repairs.<br><br><b>General Comments:</b><br>Work Completed During the Day:<br><br>Sovereign: Provided project oversight and on-site QC of Moretrench. Photodocumentaion IDs: 100412-01<br><br>Moretrench: Completed miscellaneous site clean-up, completed cleaning of landfill line with power washser. Wet weather delayed start of landfill liner repair.<br><br>Materials Brought on Site:<br><br>No new material brought on site during the day.<br><br>Equipment Brought on Site:<br><br>No additional equipment brought on site during the day.<br><br>Additional Notes:<br><br>None.<br><br><b>Verbal Instructions given by Government:</b><br>No verbal instruction given during the day by the government.<br><br><b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviued prior to start of work activties. |                                                                                                                     |                                          |             |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                     |                                          |             |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                     |                                          |             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                     |                                          |             |

|                                                                                                                                                                                                                                                                                                                       |                          |                                                                     |                    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---------------------------------------------------------------------|--------------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                   |                          | REPORT NUMBER<br>888 <span style="float: right;">Page 2 of 2</span> |                    |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                      |                          | DATE<br>04 Oct 2012 - Thursday                                      |                    |
| CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                                                                                                                                                                                                                                              |                          |                                                                     |                    |
| <b>QC REQUIREMENTS</b><br>No QC requirements were completed today                                                                                                                                                                                                                                                     |                          |                                                                     |                    |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br>No QC Deficiency items were issued today<br>No Deficiency items were corrected today                                                                                                                    |                          |                                                                     |                    |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br>No contractors had their first or last day on site today                                                                                                                                                                        |                          |                                                                     |                    |
| <b>LABOR HOURS</b><br>The following labor hours were Reported today:                                                                                                                                                                                                                                                  |                          |                                                                     |                    |
| Employer                                                                                                                                                                                                                                                                                                              | Labor Classification     | Number of<br>Employees                                              | Hours<br>Worked    |
| Moretrech                                                                                                                                                                                                                                                                                                             | HEAVY-EQUIPMENT OPERATOR | 3.0                                                                 | 24.0               |
| Moretrech                                                                                                                                                                                                                                                                                                             | LABORERS                 | 1.0                                                                 | 8.0                |
| Moretrech                                                                                                                                                                                                                                                                                                             | SUPER - CONSTRUCTION     | 1.0                                                                 | 8.0                |
| Sovereign                                                                                                                                                                                                                                                                                                             | SUPER - JOB              | 1.0                                                                 | 8.0                |
| Total hours worked to date: 3,675.3                                                                                                                                                                                                                                                                                   |                          | Total 6.0                                                           | 48.0               |
| <b>EQUIPMENT HOURS</b><br>The following equipment hours were Reported today:                                                                                                                                                                                                                                          |                          |                                                                     |                    |
| Serial Number                                                                                                                                                                                                                                                                                                         | Description              | Idle<br>Hours                                                       | Operating<br>Hours |
| N/A                                                                                                                                                                                                                                                                                                                   | Bull Dozer               | 8.50                                                                | 0.00               |
| N/A                                                                                                                                                                                                                                                                                                                   | Loader                   | 8.50                                                                | 0.00               |
| N/A                                                                                                                                                                                                                                                                                                                   | Mixing Excavator         | 6.50                                                                | 2.00               |
| N/A                                                                                                                                                                                                                                                                                                                   | Mixing Loader            | 6.50                                                                | 2.00               |
| Total operating hours to date: 968.00                                                                                                                                                                                                                                                                                 |                          | Total 30.00                                                         | 4.00               |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br>No accidents reported today                                                                                                                                                                                                                                         |                          |                                                                     |                    |
|                                                                                                                                                                                                                                                                                                                       |                          |                                                                     |                    |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above. |                          |                                                                     |                    |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                         | DATE                     | SUPERINTENDENT'S INITIALS                                           | DATE               |

|                                                                                     |                                                                                                      |                                          |             |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |                                                                                                      | REPORT NUMBER<br>889                     | Page 1 of 2 |
|                                                                                     |                                                                                                      | DATE<br>05 Oct 2012 - Friday             |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |                                                                                                      | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             | WEATHER<br>Weather Caused No Delay<br>Temperature Min 50 °F, Max 65 °F; No Precipitation; 5 MPH Wind |                                          |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.  
 Moretrench - Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Repair of Landfill Liner  
 Stockpiling Excess Soils  
 Site Restoration / Demobilization

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Sovereign in conjunction with Terrafox (Liner Repair Contractor) Supervisor conducted QC inspections of landfill liner work being completed by the labor crew throughout the day. QC inspections included ensuring at least a 6 inch overlap was being used between the existing liner and the new liner material being used to make the repairs and that all repair seams were a minimum of 2 inches wide. QC inspections were also conducted to ensure proper cleaning methods and materials along with proper compression methods were being used to make repair seams using chemical fusion welds. QC samples of welds collected for off-site testing.

**Did anything develop that may lead to a Change Order/Claim?**  
 No developments that may lead to a Change Order during the day.

**Were there any Delays in Work Progress today?**  
 There were no delays in work progress during the day.

**General Comments:**  
 Work Completed During the Day:  
  
 Sovereign: Provided project oversight and on-site QC of Moretrench. Photodocumentaion of landfill liner repair activities conducted during the day. Photo IDs: 100512-01through 100512-07  
  
 Moretrench: Started repair of landfill liner. Completed liner repair from station 4+15 to station 5+30 during the day.  
  
 Materials Brought on Site:  
  
 Chemical agent used from attaching new landfill liner material to existing liner material.  
  
 Equipment Brought on Site:  
  
 No additional equipment brought on site during the day.  
  
 Additional Notes:  
  
 None.

**Verbal Instructions given by Government:**  
 No verbal instruction given during the day by the government.

**Safety Inspection / Safety Meetings:**  
 Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviued prior to start of work activties.

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                          | REPORT NUMBER<br>889 <span style="float: right;">Page 2 of 2</span> |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                   |      |      |                                       |             |             |      |                                     |  |            |      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---------------------------------------------------------------------|--------------------|---------------|----------------------|------------------------|--------------------|-----------|--------------------------|------|------|-----------|----------|------|------|-----------|----------------------|------|------|-----------|-------------------|------|------|---------------------------------------|-------------|-------------|------|-------------------------------------|--|------------|------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          | DATE<br>05 Oct 2012 - Friday                                        |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                   |      |      |                                       |             |             |      |                                     |  |            |      |
| PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                            |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                   |      |      |                                       |             |             |      |                                     |  |            |      |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                   |      |      |                                       |             |             |      |                                     |  |            |      |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                   |      |      |                                       |             |             |      |                                     |  |            |      |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                   |      |      |                                       |             |             |      |                                     |  |            |      |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                   |      |      |                                       |             |             |      |                                     |  |            |      |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Employer</th> <th style="text-align: left; border-bottom: 1px solid black;">Labor Classification</th> <th style="text-align: right; border-bottom: 1px solid black;">Number of<br/>Employees</th> <th style="text-align: right; border-bottom: 1px solid black;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">3.0</td> <td style="text-align: right;">24.5</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">4.0</td> <td style="text-align: right;">35.5</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPERV - PATCHING</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">9.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total hours worked to date: 3,760.3</td> <td style="text-align: right; border-top: 1px solid black;">Total 10.0</td> <td style="text-align: right; border-top: 1px solid black;">85.0</td> </tr> </tbody> </table> |                          |                                                                     |                    | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 3.0  | 24.5 | Moretrech | LABORERS | 4.0  | 35.5 | Moretrech | SUPER - CONSTRUCTION | 1.0  | 8.0  | Moretrech | SUPERV - PATCHING | 1.0  | 9.0  | Sovereign                             | SUPER - JOB | 1.0         | 8.0  | Total hours worked to date: 3,760.3 |  | Total 10.0 | 85.0 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Labor Classification     | Number of<br>Employees                                              | Hours<br>Worked    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                   |      |      |                                       |             |             |      |                                     |  |            |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | HEAVY-EQUIPMENT OPERATOR | 3.0                                                                 | 24.5               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                   |      |      |                                       |             |             |      |                                     |  |            |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | LABORERS                 | 4.0                                                                 | 35.5               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                   |      |      |                                       |             |             |      |                                     |  |            |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | SUPER - CONSTRUCTION     | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                   |      |      |                                       |             |             |      |                                     |  |            |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | SUPERV - PATCHING        | 1.0                                                                 | 9.0                |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                   |      |      |                                       |             |             |      |                                     |  |            |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | SUPER - JOB              | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                   |      |      |                                       |             |             |      |                                     |  |            |      |
| Total hours worked to date: 3,760.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                          | Total 10.0                                                          | 85.0               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                   |      |      |                                       |             |             |      |                                     |  |            |      |
| <b>EQUIPMENT HOURS</b><br><b>The following equipment hours were Reported today:</b> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Serial Number</th> <th style="text-align: left; border-bottom: 1px solid black;">Description</th> <th style="text-align: right; border-bottom: 1px solid black;">Idle<br/>Hours</th> <th style="text-align: right; border-bottom: 1px solid black;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td style="text-align: right;">6.50</td> <td style="text-align: right;">2.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td style="text-align: right;">6.50</td> <td style="text-align: right;">2.00</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total operating hours to date: 972.00</td> <td style="text-align: right; border-top: 1px solid black;">Total 30.00</td> <td style="text-align: right; border-top: 1px solid black;">4.00</td> </tr> </tbody> </table>                                                                                                                                                                             |                          |                                                                     |                    | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A       | Bull Dozer               | 8.50 | 0.00 | N/A       | Loader   | 8.50 | 0.00 | N/A       | Mixing Excavator     | 6.50 | 2.00 | N/A       | Mixing Loader     | 6.50 | 2.00 | Total operating hours to date: 972.00 |             | Total 30.00 | 4.00 |                                     |  |            |      |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Description              | Idle<br>Hours                                                       | Operating<br>Hours |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                   |      |      |                                       |             |             |      |                                     |  |            |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Bull Dozer               | 8.50                                                                | 0.00               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                   |      |      |                                       |             |             |      |                                     |  |            |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Loader                   | 8.50                                                                | 0.00               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                   |      |      |                                       |             |             |      |                                     |  |            |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Mixing Excavator         | 6.50                                                                | 2.00               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                   |      |      |                                       |             |             |      |                                     |  |            |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Mixing Loader            | 6.50                                                                | 2.00               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                   |      |      |                                       |             |             |      |                                     |  |            |      |
| Total operating hours to date: 972.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                          | Total 30.00                                                         | 4.00               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                   |      |      |                                       |             |             |      |                                     |  |            |      |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                   |      |      |                                       |             |             |      |                                     |  |            |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                   |      |      |                                       |             |             |      |                                     |  |            |      |
| <b>CONTRACTOR CERTIFICATION</b> <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                   |      |      |                                       |             |             |      |                                     |  |            |      |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | DATE                     | SUPERINTENDENT'S INITIALS                                           | DATE               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                   |      |      |                                       |             |             |      |                                     |  |            |      |



|                                                                                     |                                                                                                      |                                          |             |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |                                                                                                      | REPORT NUMBER<br>893                     | Page 1 of 3 |
|                                                                                     |                                                                                                      | DATE<br>09 Oct 2012 - Tuesday            |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |                                                                                                      | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             | WEATHER<br>Weather Caused No Delay<br>Temperature Min 45 °F, Max 60 °F; No Precipitation; 5 MPH Wind |                                          |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.  
 Technical Drilling Services - Piezometer Installation Contractor.  
 Moretrench - Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Repair of Landfill Liner  
     Stockpiling Excess Soils  
     Site Restoration / Demobilization  
     Installation of Observation Wells (Piezometers)

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Preparatory Meeting held for DFW: Installation of Observation Wells (Piezometers)  
 Initial Inspection held for DFW: Repair of Landfill Liner

Sovereign in conjunction with Terrafox (Liner Repair Contractor) Supervisor conducted QC inspections of landfill liner work being completed by the labor crew throughout the day. QC inspections included ensuring at least a 6 inch overlap was being used between the existing liner and the new liner material being used to make the repairs and that all repair seams were a minimum of 2 inches wide. QC inspections were also conducted to ensure proper cleaning methods and materials along with proper compression methods were being used to make repair seams using chemical fusion welds. A final QC inspection of all repair areas was made prior to initiation of backfilling activities. QC samples of welds collect for off-site testing.

Sovereign conducted QC inspections of piezometer installation activities to ensure piezometers were installed to desired depths and in accordance with all plans.

**Did anything develop that may lead to a Change Order/Claim?**  
 No developments that may lead to a Change Order during the day.

**Were there any Delays in Work Progress today?**  
 There were no delays in work progress during the day.

**General Comments:**  
 Work Completed During the Day:

Sovereign: Provided project oversight and on-site QC of Moretrench. Photodocumentation of landfill liner repair and backfilling activities conducted during the day. Photo IDs: 100912-01 through 100912-011. Sovereign Field Scientist completed soil descriptions of split spoon samples collected during piezometer installation activities.

Technical Drilling Services: Completed installation of piezometers PZ-12-08 through PZ-12-10. PZ-12-09 and PZ-12-10 were set to a depth of 30 feet below grade with a 10 foot screen. Depth to water at these two locations was approximately 20 feet below grade. PZ-12-07 was set to a depth of 32 feet below grade with a 10 foot screen. Depth to water at this location was approximately 24 feet below grade.

Moretrench: Completed liner repair from station 4+30 to station 8+50 during the day. Began backfilling area where landfill liner had been completed the prior day. One foot of drainage sand placed atop liner repair followed by sandy soils to grade. Began screening the waste/soil stockpile with loader.

Materials Brought on Site:

75 cys of drainage sand (W.J. Graves)

Equipment Brought on Site:

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                            | REPORT NUMBER<br>893 <span style="float: right;">Page 2 of 3</span> |                    |               |                      |                        |                    |           |                            |      |      |           |          |     |      |           |                      |     |     |           |                   |     |     |           |                |     |     |           |             |     |     |                      |                |     |     |                      |                  |     |     |                                     |  |            |       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------------------------------------------|--------------------|---------------|----------------------|------------------------|--------------------|-----------|----------------------------|------|------|-----------|----------|-----|------|-----------|----------------------|-----|-----|-----------|-------------------|-----|-----|-----------|----------------|-----|-----|-----------|-------------|-----|-----|----------------------|----------------|-----|-----|----------------------|------------------|-----|-----|-------------------------------------|--|------------|-------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                            | DATE<br>09 Oct 2012 - Tuesday                                       |                    |               |                      |                        |                    |           |                            |      |      |           |          |     |      |           |                      |     |     |           |                   |     |     |           |                |     |     |           |             |     |     |                      |                |     |     |                      |                  |     |     |                                     |  |            |       |
| CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                            |                                                                     |                    |               |                      |                        |                    |           |                            |      |      |           |          |     |      |           |                      |     |     |           |                   |     |     |           |                |     |     |           |             |     |     |                      |                |     |     |                      |                  |     |     |                                     |  |            |       |
| <p>Screening machine to be used for screening of the waste/soil stockpile.</p> <p>Additional Notes:</p> <p>None.</p> <p><b>Verbal Instructions given by Government:</b><br/>         No verbal instruction given during the day by the government.</p> <p><b>Safety Inspection / Safety Meetings:</b><br/>         Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviewed prior to start of work activties.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                            |                                                                     |                    |               |                      |                        |                    |           |                            |      |      |           |          |     |      |           |                      |     |     |           |                   |     |     |           |                |     |     |           |             |     |     |                      |                |     |     |                      |                  |     |     |                                     |  |            |       |
| <p><b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)</p> <p><b>A preparatory inspection was held today for the following feature:</b><br/>         Install. of Observation Wells</p> <p><b>An initial inspection was held today for the following feature:</b><br/>         Repair of Landifll Liner</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                            |                                                                     |                    |               |                      |                        |                    |           |                            |      |      |           |          |     |      |           |                      |     |     |           |                   |     |     |           |                |     |     |           |             |     |     |                      |                |     |     |                      |                  |     |     |                                     |  |            |       |
| <p><b>ACTIVITY START/FINISH</b></p> <p>No activities were started or finished today</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                            |                                                                     |                    |               |                      |                        |                    |           |                            |      |      |           |          |     |      |           |                      |     |     |           |                   |     |     |           |                |     |     |           |             |     |     |                      |                |     |     |                      |                  |     |     |                                     |  |            |       |
| <p><b>QC REQUIREMENTS</b></p> <p>No QC requirements were completed today</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                            |                                                                     |                    |               |                      |                        |                    |           |                            |      |      |           |          |     |      |           |                      |     |     |           |                   |     |     |           |                |     |     |           |             |     |     |                      |                |     |     |                      |                  |     |     |                                     |  |            |       |
| <p><b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)</p> <p>No QC Deficiency items were issued today</p> <p>No Deficiency items were corrected today</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                            |                                                                     |                    |               |                      |                        |                    |           |                            |      |      |           |          |     |      |           |                      |     |     |           |                   |     |     |           |                |     |     |           |             |     |     |                      |                |     |     |                      |                  |     |     |                                     |  |            |       |
| <p><b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)</p> <p>Today was the first day on site for the following contractor:<br/>         Tech. Drilling Serv.</p> <p>No contractors had their last day on site today</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                            |                                                                     |                    |               |                      |                        |                    |           |                            |      |      |           |          |     |      |           |                      |     |     |           |                   |     |     |           |                |     |     |           |             |     |     |                      |                |     |     |                      |                  |     |     |                                     |  |            |       |
| <p><b>LABOR HOURS</b></p> <p>The following labor hours were Reported today:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Employer</th> <th style="text-align: left; border-bottom: 1px solid black;">Labor Classification</th> <th style="text-align: right; border-bottom: 1px solid black;">Number of<br/>Employees</th> <th style="text-align: right; border-bottom: 1px solid black;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEA VY -EQUIPMENT OPERATOR</td> <td style="text-align: right;">3.0</td> <td style="text-align: right;">25.0</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">4.0</td> <td style="text-align: right;">36.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPERV - PATCHING</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">2.0</td> </tr> <tr> <td>Sovereign</td> <td>FIELD ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Tech. Drilling Serv.</td> <td>DRILLER HELPER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Tech. Drilling Serv.</td> <td>DRILLER OPERATOR</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td colspan="2">Total hours worked to date: 3,863.3</td> <td style="text-align: right; border-top: 1px solid black;">Total 13.0</td> <td style="text-align: right; border-top: 1px solid black;">103.0</td> </tr> </tbody> </table> |                            |                                                                     |                    | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | Moretrech | HEA VY -EQUIPMENT OPERATOR | 3.0  | 25.0 | Moretrech | LABORERS | 4.0 | 36.0 | Moretrech | SUPER - CONSTRUCTION | 1.0 | 8.0 | Moretrech | SUPERV - PATCHING | 1.0 | 2.0 | Sovereign | FIELD ENGINEER | 1.0 | 8.0 | Sovereign | SUPER - JOB | 1.0 | 8.0 | Tech. Drilling Serv. | DRILLER HELPER | 1.0 | 8.0 | Tech. Drilling Serv. | DRILLER OPERATOR | 1.0 | 8.0 | Total hours worked to date: 3,863.3 |  | Total 13.0 | 103.0 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Labor Classification       | Number of<br>Employees                                              | Hours<br>Worked    |               |                      |                        |                    |           |                            |      |      |           |          |     |      |           |                      |     |     |           |                   |     |     |           |                |     |     |           |             |     |     |                      |                |     |     |                      |                  |     |     |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | HEA VY -EQUIPMENT OPERATOR | 3.0                                                                 | 25.0               |               |                      |                        |                    |           |                            |      |      |           |          |     |      |           |                      |     |     |           |                   |     |     |           |                |     |     |           |             |     |     |                      |                |     |     |                      |                  |     |     |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | LABORERS                   | 4.0                                                                 | 36.0               |               |                      |                        |                    |           |                            |      |      |           |          |     |      |           |                      |     |     |           |                   |     |     |           |                |     |     |           |             |     |     |                      |                |     |     |                      |                  |     |     |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | SUPER - CONSTRUCTION       | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                            |      |      |           |          |     |      |           |                      |     |     |           |                   |     |     |           |                |     |     |           |             |     |     |                      |                |     |     |                      |                  |     |     |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | SUPERV - PATCHING          | 1.0                                                                 | 2.0                |               |                      |                        |                    |           |                            |      |      |           |          |     |      |           |                      |     |     |           |                   |     |     |           |                |     |     |           |             |     |     |                      |                |     |     |                      |                  |     |     |                                     |  |            |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | FIELD ENGINEER             | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                            |      |      |           |          |     |      |           |                      |     |     |           |                   |     |     |           |                |     |     |           |             |     |     |                      |                |     |     |                      |                  |     |     |                                     |  |            |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | SUPER - JOB                | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                            |      |      |           |          |     |      |           |                      |     |     |           |                   |     |     |           |                |     |     |           |             |     |     |                      |                |     |     |                      |                  |     |     |                                     |  |            |       |
| Tech. Drilling Serv.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | DRILLER HELPER             | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                            |      |      |           |          |     |      |           |                      |     |     |           |                   |     |     |           |                |     |     |           |             |     |     |                      |                |     |     |                      |                  |     |     |                                     |  |            |       |
| Tech. Drilling Serv.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | DRILLER OPERATOR           | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                            |      |      |           |          |     |      |           |                      |     |     |           |                   |     |     |           |                |     |     |           |             |     |     |                      |                |     |     |                      |                  |     |     |                                     |  |            |       |
| Total hours worked to date: 3,863.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                            | Total 13.0                                                          | 103.0              |               |                      |                        |                    |           |                            |      |      |           |          |     |      |           |                      |     |     |           |                   |     |     |           |                |     |     |           |             |     |     |                      |                |     |     |                      |                  |     |     |                                     |  |            |       |
| <p><b>EQUIPMENT HOURS</b></p> <p>The following equipment hours were Reported today:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Serial Number</th> <th style="text-align: left; border-bottom: 1px solid black;">Description</th> <th style="text-align: right; border-bottom: 1px solid black;">Idle<br/>Hours</th> <th style="text-align: right; border-bottom: 1px solid black;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> </tbody> </table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                            |                                                                     |                    | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A       | Bull Dozer                 | 8.50 | 0.00 |           |          |     |      |           |                      |     |     |           |                   |     |     |           |                |     |     |           |             |     |     |                      |                |     |     |                      |                  |     |     |                                     |  |            |       |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Description                | Idle<br>Hours                                                       | Operating<br>Hours |               |                      |                        |                    |           |                            |      |      |           |          |     |      |           |                      |     |     |           |                   |     |     |           |                |     |     |           |             |     |     |                      |                |     |     |                      |                  |     |     |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Bull Dozer                 | 8.50                                                                | 0.00               |               |                      |                        |                    |           |                            |      |      |           |          |     |      |           |                      |     |     |           |                   |     |     |           |                |     |     |           |             |     |     |                      |                |     |     |                      |                  |     |     |                                     |  |            |       |

|                                                                                                                                                                                                                                                                                                                                      |                  |                                          |                           |             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|------------------------------------------|---------------------------|-------------|
| <div>CONTRACTORS QUALITY CONTROL REPORT (QCR)</div> <div>DAILY LOG OF CONSTRUCTION</div>                                                                                                                                                                                                                                             |                  | REPORT NUMBER<br>893                     |                           | Page 3 of 3 |
|                                                                                                                                                                                                                                                                                                                                      |                  | DATE<br>09 Oct 2012 - Tuesday            |                           |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                     |                  | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |                           |             |
| N/A                                                                                                                                                                                                                                                                                                                                  | Loader           | 2.00                                     | 6.50                      |             |
| N/A                                                                                                                                                                                                                                                                                                                                  | Mixing Excavator | 1.00                                     | 7.50                      |             |
| N/A                                                                                                                                                                                                                                                                                                                                  | Mixing Loader    | 1.00                                     | 7.50                      |             |
| Total operating hours to date: 993.50                                                                                                                                                                                                                                                                                                |                  | Total                                    | 12.50                     | 21.50       |
| <div>ACCIDENT REPORTING (Describe accidents)</div> <div>No accidents reported today</div>                                                                                                                                                                                                                                            |                  |                                          |                           |             |
|                                                                                                                                                                                                                                                                                                                                      |                  |                                          |                           |             |
| <div>CONTRACTOR CERTIFICATION</div> <div>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</div> |                  |                                          |                           |             |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                        |                  | DATE                                     | SUPERINTENDENT'S INITIALS | DATE        |

|                                                                                     |  |                                                                                                           |             |
|-------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |  | REPORT NUMBER<br>894                                                                                      | Page 1 of 2 |
|                                                                                     |  | DATE<br>10 Oct 2012 - Wednesday                                                                           |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |  | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                                  |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             |  | WEATHER<br>Weather Caused No Delay<br>Temperature Min 50 °F, Max 60 °F; 0.25 IN Precipitation; 5 MPH Wind |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.  
 Technical Drilling Services - Piezometer Installation Contractor.  
 Moretrench - Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Stockpiling Excess Soils  
 Site Restoration / Demobilization  
 Installation of Observation Wells (Piezometers)

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Sovereign conducted visual QC inspections of backfilling activities in the area of landfill liner repair.

Sovereign conducted QC inspections of piezometer installation activites to ensure piezometers were installed to desired depths and in accordance with all plans.

**Did anything develop that may lead to a Change Order/Claim ?**  
 No developments that may lead to a Change Order during the day.

**Were there any Delays in Work Progress today?**  
 There were no delays in work progress during the day.

**General Comments:**  
 Work Completed During the Day:

Sovereign: Provided project oversight and on-site QC of Moretrench. Photodocumentaion of backfilling and drilling activities conducted during the day. Photo IDs: 1001012-01through 101012-05. Sovereign Field Scientist completed soil descriptions of spilt spoon samples collected during piezometer installation activities.

Technical Drilling Services: Completed installation of piezometers PZ-12-05, PZ-12-06. and PZ-12-08. PZ-12-05 was set to a depth of 35 feet below grade with a 10 foot screen and PZ-12-06 were set to a depth of 36 feet below grade with a 10 foot screen. Depth to water at these two locations was approximately 20 feet below grade. PZ-12-08 was set to a depth of 32 feet below grade with a 10 foot screen. Depth to water at this location was approximately 24 feet below grade

Moretrench: Completed backfilling area where landfill liner repair had been completed the prior day. One foot of drainage sand placed atop liner repair followed by sandy soils to grade. Continured screening the waste/soil stockpile with loade and screener.

Materials Brought on Site:

75 cys of drainage sand (W.J. Graves)

Equipment Brought on Site:

No new equipment brought on site.  
 Sovereign field trailer removed from site.

Additional Notes:

None.

**Verbal Instructions given by Government:**  
 No verbal instruction given during the day by the government.

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                          | REPORT NUMBER<br>894 <span style="float: right;">Page 2 of 2</span> |                                   |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |              |              |                      |                |     |     |                      |                  |     |     |                                     |  |              |            |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---------------------------------------------------------------------|-----------------------------------|---------------|----------------------|---------------------|-----------------|-----------|--------------------------|------|------|-----------|----------|------|------|-----------|----------------------|------|------|-----------|----------------|------|------|-----------------------------------------|-------------|--------------|--------------|----------------------|----------------|-----|-----|----------------------|------------------|-----|-----|-------------------------------------|--|--------------|------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                          | DATE<br>10 Oct 2012 - Wednesday                                     |                                   |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |              |              |                      |                |     |     |                      |                  |     |     |                                     |  |              |            |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                          | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                            |                                   |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |              |              |                      |                |     |     |                      |                  |     |     |                                     |  |              |            |
| <b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviued prior to start of work activties.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          |                                                                     |                                   |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |              |              |                      |                |     |     |                      |                  |     |     |                                     |  |              |            |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                          |                                                                     |                                   |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |              |              |                      |                |     |     |                      |                  |     |     |                                     |  |              |            |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                          |                                                                     |                                   |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |              |              |                      |                |     |     |                      |                  |     |     |                                     |  |              |            |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                          |                                                                     |                                   |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |              |              |                      |                |     |     |                      |                  |     |     |                                     |  |              |            |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                          |                                                                     |                                   |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |              |              |                      |                |     |     |                      |                  |     |     |                                     |  |              |            |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                          |                                                                     |                                   |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |              |              |                      |                |     |     |                      |                  |     |     |                                     |  |              |            |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Employer</th> <th>Labor Classification</th> <th>Number of Employees</th> <th>Hours Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td>2.0</td> <td>16.0</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td>Sovereign</td> <td>FIELD ENGINEER</td> <td>1.0</td> <td>7.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td>Tech. Drilling Serv.</td> <td>DRILLER HELPER</td> <td>1.0</td> <td>7.0</td> </tr> <tr> <td>Tech. Drilling Serv.</td> <td>DRILLER OPERATOR</td> <td>1.0</td> <td>7.0</td> </tr> <tr> <td colspan="2">Total hours worked to date: 3,924.3</td> <td><b>Total</b></td> <td><b>8.0</b></td> </tr> </tbody> </table> |                          |                                                                     |                                   | Employer      | Labor Classification | Number of Employees | Hours Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 2.0  | 16.0 | Moretrech | LABORERS | 1.0  | 8.0  | Moretrech | SUPER - CONSTRUCTION | 1.0  | 8.0  | Sovereign | FIELD ENGINEER | 1.0  | 7.0  | Sovereign                               | SUPER - JOB | 1.0          | 8.0          | Tech. Drilling Serv. | DRILLER HELPER | 1.0 | 7.0 | Tech. Drilling Serv. | DRILLER OPERATOR | 1.0 | 7.0 | Total hours worked to date: 3,924.3 |  | <b>Total</b> | <b>8.0</b> |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Labor Classification     | Number of Employees                                                 | Hours Worked                      |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |              |              |                      |                |     |     |                      |                  |     |     |                                     |  |              |            |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | HEAVY-EQUIPMENT OPERATOR | 2.0                                                                 | 16.0                              |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |              |              |                      |                |     |     |                      |                  |     |     |                                     |  |              |            |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | LABORERS                 | 1.0                                                                 | 8.0                               |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |              |              |                      |                |     |     |                      |                  |     |     |                                     |  |              |            |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | SUPER - CONSTRUCTION     | 1.0                                                                 | 8.0                               |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |              |              |                      |                |     |     |                      |                  |     |     |                                     |  |              |            |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | FIELD ENGINEER           | 1.0                                                                 | 7.0                               |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |              |              |                      |                |     |     |                      |                  |     |     |                                     |  |              |            |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | SUPER - JOB              | 1.0                                                                 | 8.0                               |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |              |              |                      |                |     |     |                      |                  |     |     |                                     |  |              |            |
| Tech. Drilling Serv.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | DRILLER HELPER           | 1.0                                                                 | 7.0                               |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |              |              |                      |                |     |     |                      |                  |     |     |                                     |  |              |            |
| Tech. Drilling Serv.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | DRILLER OPERATOR         | 1.0                                                                 | 7.0                               |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |              |              |                      |                |     |     |                      |                  |     |     |                                     |  |              |            |
| Total hours worked to date: 3,924.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                          | <b>Total</b>                                                        | <b>8.0</b>                        |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |              |              |                      |                |     |     |                      |                  |     |     |                                     |  |              |            |
| <b>EQUIPMENT HOURS</b><br><b>The following equipment hours were Reported today:</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Serial Number</th> <th>Description</th> <th>Idle Hours</th> <th>Operating Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td>8.50</td> <td>0.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td>5.00</td> <td>3.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td>5.00</td> <td>3.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td>1.00</td> <td>7.50</td> </tr> <tr> <td colspan="2">Total operating hours to date: 1,008.00</td> <td><b>Total</b></td> <td><b>19.50</b></td> </tr> </tbody> </table>                                                                                                                                                                                                                                                                                                        |                          |                                                                     |                                   | Serial Number | Description          | Idle Hours          | Operating Hours | N/A       | Bull Dozer               | 8.50 | 0.00 | N/A       | Loader   | 5.00 | 3.50 | N/A       | Mixing Excavator     | 5.00 | 3.50 | N/A       | Mixing Loader  | 1.00 | 7.50 | Total operating hours to date: 1,008.00 |             | <b>Total</b> | <b>19.50</b> |                      |                |     |     |                      |                  |     |     |                                     |  |              |            |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Description              | Idle Hours                                                          | Operating Hours                   |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |              |              |                      |                |     |     |                      |                  |     |     |                                     |  |              |            |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Bull Dozer               | 8.50                                                                | 0.00                              |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |              |              |                      |                |     |     |                      |                  |     |     |                                     |  |              |            |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Loader                   | 5.00                                                                | 3.50                              |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |              |              |                      |                |     |     |                      |                  |     |     |                                     |  |              |            |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Mixing Excavator         | 5.00                                                                | 3.50                              |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |              |              |                      |                |     |     |                      |                  |     |     |                                     |  |              |            |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Mixing Loader            | 1.00                                                                | 7.50                              |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |              |              |                      |                |     |     |                      |                  |     |     |                                     |  |              |            |
| Total operating hours to date: 1,008.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                          | <b>Total</b>                                                        | <b>19.50</b>                      |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |              |              |                      |                |     |     |                      |                  |     |     |                                     |  |              |            |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                          |                                                                     |                                   |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |              |              |                      |                |     |     |                      |                  |     |     |                                     |  |              |            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                          |                                                                     |                                   |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |              |              |                      |                |     |     |                      |                  |     |     |                                     |  |              |            |
| <b>CONTRACTOR CERTIFICATION</b> <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          |                                                                     |                                   |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |              |              |                      |                |     |     |                      |                  |     |     |                                     |  |              |            |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          | DATE                                                                | SUPERINTENDENT'S INITIALS<br>DATE |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |              |              |                      |                |     |     |                      |                  |     |     |                                     |  |              |            |

|                                                                                     |                                                                                                       |                                          |             |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |                                                                                                       | REPORT NUMBER<br>895                     | Page 1 of 2 |
|                                                                                     |                                                                                                       | DATE<br>11 Oct 2012 - Thursday           |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |                                                                                                       | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             | WEATHER<br>Weather Caused No Delay<br>Temperature Min 50 °F, Max 55 °F; No Precipitation; 15 MPH Wind |                                          |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.  
 Technical Drilling Services - Piezometer Installation Contractor.  
 Moretrench - Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Stockpiling Excess Soils  
       Site Restoration / Demobilization  
       Installation of Observation Wells (Piezometers)

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Sovereign conducted QC inspections of piezometer installation activites to ensure piezometers were installed to desired depths and in accordance with all plans.

A Follow-up inspection was completed for DFWs: Stockpiling of Soil Materials and Site Restoration / Demobilization. by Sovereign and USACE.

This inspections were also deemed as the Pre-Final Inspection for the project by Randy LeCuyer (USACE Construction Representative).

**Did anything develop that may lead to a Change Order/Claim ?**  
 No developments that may lead to a Change Order during the day.

**Were there any Delays in Work Progress today?**  
 There were no delays in work progress during the day.

**General Comments:**  
 Work Completed During the Day:

Sovereign: Provided project oversight and on-site QC of Moretrench. Photodocumentaion of drilling activities conducted during the day. Photo IDs: 101112-01through 101112-04. Sovereign Field Scientist completed soil descriptions of spilt spoon samples collected during piezometer installation activities.

Technical Drilling Services: Completed installation of piezometers PZ-12-01 thorough PZ-12-04. Piezometers PZ-12-01 thorough PZ-12-04PZ-12-05 were set to a depth of 36 feet below grade with a 10 foot screen. Depth to water at all locations was approximately 20 feet below grade.

Moretrench: Loaded trailers and shipped Moretrench stoarage container, field office, fuel cell, and HDPE pipe off-site. Dumpster removed from site by Waste Management. Completed screening of waste/soil pile. Set up waste storage area. Installed plastic on the ground and surrounded area with silt fencing prior to placing the screened waste on top. Stockpiled screen clean soil and installed silt fence around the stockpile. Graded and repaired access road from gate to platform area. Scraped road surface and repaired pot holes.

Materials Brought on Site:

No new materials brought on site during the day.

Equipment Brought on Site:

No new equipment brought on site.

Additional Notes:

Bill Brandon (USEPA) on site during the afternoon to observe installation of piezometers PZ-12-01 and PZ-12-02.

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                          | REPORT NUMBER<br>895 <span style="float: right;">Page 2 of 2</span> |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---------------------------------------------------------------------|--------------------|---------------|----------------------|------------------------|--------------------|-----------|--------------------------|------|------|-----------|----------|------|------|-----------|----------------------|------|------|-----------|----------------|------|------|-----------|-------------|--------------|--------------|-----------------------------------------|----------------|-----|--------------|----------------------|------------------|-----|-----|--|--|--------------|------------|-------------------------------------|--|--|-------------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                          | DATE<br>11 Oct 2012 - Thursday                                      |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
| <b>Verbal Instructions given by Government:</b><br>No verbal instruction given during the day by the government.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                          | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                            |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
| <b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviewed prior to start of work activties.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
| <b>QC REQUIREMENTS</b><br><b>No QC requiremements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">2.0</td> <td style="text-align: right;">16.0</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Sovereign</td> <td>FIELD ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.5</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Tech. Drilling Serv.</td> <td>DRILLER HELPER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.5</td> </tr> <tr> <td>Tech. Drilling Serv.</td> <td>DRILLER OPERATOR</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.5</td> </tr> <tr> <td colspan="2"></td> <td style="text-align: right; border-top: 1px solid black;"><b>Total</b></td> <td style="text-align: right; border-top: 1px solid black;"><b>8.0</b></td> </tr> <tr> <td colspan="2">Total hours worked to date: 3,989.8</td> <td></td> <td style="text-align: right; border-top: 1px solid black;"><b>65.5</b></td> </tr> </tbody> </table> |                          |                                                                     |                    | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 2.0  | 16.0 | Moretrech | LABORERS | 1.0  | 8.0  | Moretrech | SUPER - CONSTRUCTION | 1.0  | 8.0  | Sovereign | FIELD ENGINEER | 1.0  | 8.5  | Sovereign | SUPER - JOB | 1.0          | 8.0          | Tech. Drilling Serv.                    | DRILLER HELPER | 1.0 | 8.5          | Tech. Drilling Serv. | DRILLER OPERATOR | 1.0 | 8.5 |  |  | <b>Total</b> | <b>8.0</b> | Total hours worked to date: 3,989.8 |  |  | <b>65.5</b> |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Labor Classification     | Number of<br>Employees                                              | Hours<br>Worked    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | HEAVY-EQUIPMENT OPERATOR | 2.0                                                                 | 16.0               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | LABORERS                 | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | SUPER - CONSTRUCTION     | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | FIELD ENGINEER           | 1.0                                                                 | 8.5                |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | SUPER - JOB              | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
| Tech. Drilling Serv.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | DRILLER HELPER           | 1.0                                                                 | 8.5                |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
| Tech. Drilling Serv.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | DRILLER OPERATOR         | 1.0                                                                 | 8.5                |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                          | <b>Total</b>                                                        | <b>8.0</b>         |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
| Total hours worked to date: 3,989.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                          |                                                                     | <b>65.5</b>        |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
| <b>EQUIPMENT HOURS</b><br><b>The following equipment hours were Reported today:</b> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle<br/>Hours</th> <th style="text-align: right;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">5.00</td> <td style="text-align: right;">3.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">7.50</td> </tr> <tr> <td colspan="2"></td> <td style="text-align: right; border-top: 1px solid black;"><b>Total</b></td> <td style="text-align: right; border-top: 1px solid black;"><b>23.00</b></td> </tr> <tr> <td colspan="2">Total operating hours to date: 1,019.00</td> <td></td> <td style="text-align: right; border-top: 1px solid black;"><b>11.00</b></td> </tr> </tbody> </table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          |                                                                     |                    | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A       | Bull Dozer               | 8.50 | 0.00 | N/A       | Loader   | 5.00 | 3.50 | N/A       | Mixing Excavator     | 8.50 | 0.00 | N/A       | Mixing Loader  | 1.00 | 7.50 |           |             | <b>Total</b> | <b>23.00</b> | Total operating hours to date: 1,019.00 |                |     | <b>11.00</b> |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Description              | Idle<br>Hours                                                       | Operating<br>Hours |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Bull Dozer               | 8.50                                                                | 0.00               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Loader                   | 5.00                                                                | 3.50               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Mixing Excavator         | 8.50                                                                | 0.00               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Mixing Loader            | 1.00                                                                | 7.50               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                          | <b>Total</b>                                                        | <b>23.00</b>       |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
| Total operating hours to date: 1,019.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |                                                                     | <b>11.00</b>       |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
| <b>CONTRACTOR CERTIFICATION</b> <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | DATE                     | SUPERINTENDENT'S INITIALS                                           | DATE               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                                                                                                                     |             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  | REPORT NUMBER<br>896                                                                                                | Page 1 of 2 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  | DATE<br>12 Oct 2012 - Friday                                                                                        |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                                            |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  | WEATHER<br>Weather Caused Non-Critical Delay<br>Temperature Min 50 °F, Max 55 °F; 0.1 IN Precipitation; 10 MPH Wind |             |
| <b>QC NARRATIVES</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |                                                                                                                     |             |
| <b>Contractor/Subcontractor &amp; Area of Responsibility for work:</b><br>Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.<br>Moretrench - Barrier Wall Construction Contractor                                                                                                                                                                                                                                                                                                                                     |  |                                                                                                                     |             |
| <b>Activities in Progress (List by Activity Number)</b><br>DFW: Site Restoration / Demobilization                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |                                                                                                                     |             |
| <b>Quality Control Inspections and Activities (List by Feature of Work)</b><br>Sovereign conducted QC inspections of rough grading and rebuilding of berm.                                                                                                                                                                                                                                                                                                                                                                                              |  |                                                                                                                     |             |
| <b>Did anything develop that may lead to a Change Order/Claim?</b><br>No developments that may lead to a Change Order during the day.                                                                                                                                                                                                                                                                                                                                                                                                                   |  |                                                                                                                     |             |
| <b>Were there any Delays in Work Progress today?</b><br>Due to wet weather rough grading and rebuilding of the berm was only conducted during the morning.                                                                                                                                                                                                                                                                                                                                                                                              |  |                                                                                                                     |             |
| <b>General Comments:</b><br>Work Completed During the Day:<br><br>Sovereign: Provided project oversight and on-site QC of Moretrench.<br><br>Moretrench: Prepared heavy equipment for demobilization. Rough graded northern portion of the barrier wall. Started to rebuild berm from existing berm along access road to around station 7+00.<br><br>Materials Brought on Site:<br><br>No new materials brought on site during the day.<br><br>Equipment Brought on Site:<br><br>No new equipment brought on site.<br><br>Additional Notes:<br><br>None |  |                                                                                                                     |             |
| <b>Verbal Instructions given by Government:</b><br>No verbal instruction given during the day by the government.                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |                                                                                                                     |             |
| <b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's viewed prior to start of work activities.                                                                                                                                                                                                                                                                                                                                                           |  |                                                                                                                     |             |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                       |  |                                                                                                                     |             |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |                                                                                                                     |             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                                                                                                                     |             |



|                                                                                                                                                                                                                                                                                                                       |                          |                                                                     |                    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---------------------------------------------------------------------|--------------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                   |                          | REPORT NUMBER<br>896 <span style="float: right;">Page 2 of 2</span> |                    |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                      |                          | DATE<br>12 Oct 2012 - Friday                                        |                    |
| CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                                                                                                                                                                                                                                              |                          |                                                                     |                    |
| <b>QC REQUIREMENTS</b><br>No QC requirements were completed today                                                                                                                                                                                                                                                     |                          |                                                                     |                    |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br>No QC Deficiency items were issued today<br>No Deficiency items were corrected today                                                                                                                    |                          |                                                                     |                    |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br>No contractors had their first or last day on site today                                                                                                                                                                        |                          |                                                                     |                    |
| <b>LABOR HOURS</b><br>The following labor hours were Reported today:                                                                                                                                                                                                                                                  |                          |                                                                     |                    |
| Employer                                                                                                                                                                                                                                                                                                              | Labor Classification     | Number of<br>Employees                                              | Hours<br>Worked    |
| Moretrech                                                                                                                                                                                                                                                                                                             | HEAVY-EQUIPMENT OPERATOR | 2.0                                                                 | 16.0               |
| Moretrech                                                                                                                                                                                                                                                                                                             | LABORERS                 | 1.0                                                                 | 8.0                |
| Moretrech                                                                                                                                                                                                                                                                                                             | SUPER - CONSTRUCTION     | 1.0                                                                 | 8.0                |
| Sovereign                                                                                                                                                                                                                                                                                                             | SUPER - JOB              | 1.0                                                                 | 8.0                |
| Total hours worked to date: 4,029.8                                                                                                                                                                                                                                                                                   |                          | Total 5.0                                                           | 40.0               |
| <b>EQUIPMENT HOURS</b><br>The following equipment hours were Reported today:                                                                                                                                                                                                                                          |                          |                                                                     |                    |
| Serial Number                                                                                                                                                                                                                                                                                                         | Description              | Idle<br>Hours                                                       | Operating<br>Hours |
| N/A                                                                                                                                                                                                                                                                                                                   | Bull Dozer               | 8.50                                                                | 0.00               |
| N/A                                                                                                                                                                                                                                                                                                                   | Loader                   | 5.00                                                                | 3.50               |
| N/A                                                                                                                                                                                                                                                                                                                   | Mixing Excavator         | 8.50                                                                | 0.00               |
| N/A                                                                                                                                                                                                                                                                                                                   | Mixing Loader            | 1.00                                                                | 7.50               |
| Total operating hours to date: 1,030.00                                                                                                                                                                                                                                                                               |                          | Total 23.00                                                         | 11.00              |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br>No accidents reported today                                                                                                                                                                                                                                         |                          |                                                                     |                    |
|                                                                                                                                                                                                                                                                                                                       |                          |                                                                     |                    |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above. |                          |                                                                     |                    |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                         | DATE                     | SUPERINTENDENT'S INITIALS                                           | DATE               |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |                                                                                                      |             |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  | REPORT NUMBER<br>908                                                                                 | Page 1 of 2 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  | DATE<br>24 Oct 2012 - Wednesday                                                                      |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                             |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  | WEATHER<br>Weather Caused No Delay<br>Temperature Min 50 °F, Max 60 °F; No Precipitation; 5 MPH Wind |             |
| <b>QC NARRATIVES</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                                                                                                      |             |
| <b>Contractor/Subcontractor &amp; Area of Responsibility for work:</b><br>Sovereign - Provided oversight of TDS<br>Technical Drilling Services - Piezometer Installation Contractor.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                                                                                                      |             |
| <b>Activities in Progress (List by Activity Number)</b><br>DFW: Installation of Observation Wells (Piezometers)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |                                                                                                      |             |
| <b>Quality Control Inspections and Activities (List by Feature of Work)</b><br>Sovereign conducted QC inspections of piezometer casing installations to ensure the methods used would be conducive to landfill liner repairs around each piezometer.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                                                                                                      |             |
| <b>Did anything develop that may lead to a Change Order/Claim?</b><br>No developments that may lead to a Change Order during the day.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                                                                                                      |             |
| <b>Were there any Delays in Work Progress today?</b><br>There were no delays in work progress during the day.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |                                                                                                      |             |
| <b>General Comments:</b><br>Work Completed During the Day:<br><br>Sovereign: Provided project oversight of Technical Drilling Services during the installation of steel casings around piezometers located within the landfill liner.<br><br>Technical Drilling Services: Conducted the installation of steel casings around piezometers PZ-12-02 through PZ-12-06. Extra long steel casings were fabricated by TDS off-site. The extra long steel casings were need for those piezometers located within the landfill liner. The steel casing on each piezometer were installed to a depth of approximately one to one and a half feet below the landfill liner and cemented in. Area around these piezometers were not backfilled during the day as the landfill liner around each piezometer will have to be repaired at a future date.<br><br>Materials Brought on Site:<br><br>Five extra long steel casings and cement.<br><br>Equipment Brought on Site:<br><br>No new equipment brought on site.<br><br>Additional Notes:<br><br>None. |  |                                                                                                      |             |
| <b>Verbal Instructions given by Government:</b><br>No verbal instruction given during the day by the government.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |                                                                                                      |             |
| <b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviued prior to start of work activties.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |                                                                                                      |             |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |                                                                                                      |             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |                                                                                                      |             |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                      | REPORT NUMBER<br>908 <span style="float: right;">Page 2 of 2</span> |                           |          |                      |                        |                 |           |             |     |     |                      |                  |     |     |                                     |  |           |     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|---------------------------------------------------------------------|---------------------------|----------|----------------------|------------------------|-----------------|-----------|-------------|-----|-----|----------------------|------------------|-----|-----|-------------------------------------|--|-----------|-----|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                      | DATE<br>24 Oct 2012 - Wednesday                                     |                           |          |                      |                        |                 |           |             |     |     |                      |                  |     |     |                                     |  |           |     |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                      | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                            |                           |          |                      |                        |                 |           |             |     |     |                      |                  |     |     |                                     |  |           |     |
| <b>ACTIVITY START/FINISH</b><br>No activities were started or finished today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                      |                                                                     |                           |          |                      |                        |                 |           |             |     |     |                      |                  |     |     |                                     |  |           |     |
| <b>QC REQUIREMENTS</b><br>No QC requirements were completed today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                      |                                                                     |                           |          |                      |                        |                 |           |             |     |     |                      |                  |     |     |                                     |  |           |     |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br>No QC Deficiency items were issued today<br>No Deficiency items were corrected today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                      |                                                                     |                           |          |                      |                        |                 |           |             |     |     |                      |                  |     |     |                                     |  |           |     |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br>No contractors had their first day on site today<br>Today was the last day on site for the following contractor:<br>Tech. Drilling Serv.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                      |                                                                     |                           |          |                      |                        |                 |           |             |     |     |                      |                  |     |     |                                     |  |           |     |
| <b>LABOR HOURS</b><br>The following labor hours were Reported today: <table border="0" style="width: 100%; margin-top: 10px;"> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">3.0</td> </tr> <tr> <td>Tech. Drilling Serv.</td> <td>DRILLER OPERATOR</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">3.0</td> </tr> <tr> <td colspan="2">Total hours worked to date: 4,035.8</td> <td style="text-align: right;">Total 2.0</td> <td style="text-align: right;">6.0</td> </tr> </table> |                      |                                                                     |                           | Employer | Labor Classification | Number of<br>Employees | Hours<br>Worked | Sovereign | SUPER - JOB | 1.0 | 3.0 | Tech. Drilling Serv. | DRILLER OPERATOR | 1.0 | 3.0 | Total hours worked to date: 4,035.8 |  | Total 2.0 | 6.0 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Labor Classification | Number of<br>Employees                                              | Hours<br>Worked           |          |                      |                        |                 |           |             |     |     |                      |                  |     |     |                                     |  |           |     |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | SUPER - JOB          | 1.0                                                                 | 3.0                       |          |                      |                        |                 |           |             |     |     |                      |                  |     |     |                                     |  |           |     |
| Tech. Drilling Serv.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | DRILLER OPERATOR     | 1.0                                                                 | 3.0                       |          |                      |                        |                 |           |             |     |     |                      |                  |     |     |                                     |  |           |     |
| Total hours worked to date: 4,035.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                      | Total 2.0                                                           | 6.0                       |          |                      |                        |                 |           |             |     |     |                      |                  |     |     |                                     |  |           |     |
| <b>EQUIPMENT HOURS</b><br>No equipment hours were Reported today<br>Total operating hours to date: 1,030.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                      |                                                                     |                           |          |                      |                        |                 |           |             |     |     |                      |                  |     |     |                                     |  |           |     |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br>No accidents reported today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                      |                                                                     |                           |          |                      |                        |                 |           |             |     |     |                      |                  |     |     |                                     |  |           |     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                      |                                                                     |                           |          |                      |                        |                 |           |             |     |     |                      |                  |     |     |                                     |  |           |     |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                      |                                                                     |                           |          |                      |                        |                 |           |             |     |     |                      |                  |     |     |                                     |  |           |     |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                      | DATE                                                                | SUPERINTENDENT'S INITIALS |          |                      |                        |                 |           |             |     |     |                      |                  |     |     |                                     |  |           |     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                      |                                                                     | DATE                      |          |                      |                        |                 |           |             |     |     |                      |                  |     |     |                                     |  |           |     |

|                                                                                     |                                                                                                       |                                          |             |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |                                                                                                       | REPORT NUMBER<br>909                     | Page 1 of 2 |
|                                                                                     |                                                                                                       | DATE<br>25 Oct 2012 - Thursday           |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |                                                                                                       | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             | WEATHER<br>Weather Caused No Delay<br>Temperature Min 45 °F, Max 55 °F; No Precipitation; 10 MPH Wind |                                          |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Gatsby Grounds  
 Gatsby Grounds (sub-contractor to Moretrench) - Site Restoration Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Site Restoration / Demobilization

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Sovereign conducted QC inspections of site restoration activities being conducted during the day.  
  
 A Follow-Up Inspection was completed for DFW: Site Restoration / Demobilization.

**Did anything develop that may lead to a Change Order/Claim?**  
 No developments that may lead to a Change Order during the day.

**Were there any Delays in Work Progress today?**  
 There were no delays in work progress during the day.

**General Comments:**  
 Work Completed During the Day:

Sovereign: Provided project oversight of Gatsby Grounds (sub-contractor to Moretrench) during site restoration activities. Conducted photo documentation of restoration activities. Photograph IDs: 102512-01 through 102512-05.

Gatsby Grounds (sub-contractor to Moretrench): Conducted site restoration activities including the completeion of rough grading with a bull dozer in the northern portion of disturbed area around the barrier wall. Final grading was completed in the southern and central portions of the disturbed area around the barrier wall with a soil conditioner and power-rake.

Materials Brought on Site:

None.

Equipment Brought on Site:

John Deer 450H Bull Dozer - Taken off-site at end of the day.  
 John Deer Skid Steerer with soil conditioner and power-rake attachments.

Additional Notes:

Randy LeCuyer (USACE Construction Representative) on-site during the afternoon to complete inspection of site restoration activities. No major comments or concerns noted during walk-through of the site. Jonathan Chaffee of Sovereign asked Randy LeCuyer if he still wanted seeding activities to be conducted the following day with a hurricane in the forecast for early the next week. Randy LeCuyer informed Sovereign to conduct seeding activites the following day. A final inspection for the project will be conducted following the completeion of all site restoration activities including the removal and disposal of stockpiled waste and concrete.

**Verbal Instructions given by Government:**  
 Jonathan Chaffee of Sovereign asked Randy LeCuyer if he still wanted seeding activities to be conducted the following day with a hurricane in the forecast for early the next week. Randy LeCuyer informed Sovereign to conduct seeding activites the following day.

No other verbal instruction given during the day by the government.

**Safety Inspection / Safety Meetings:**

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              | REPORT NUMBER<br>909 <span style="float: right;">Page 2 of 2</span> |                    |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------------|--------------------|---------------|----------------------|------------------------|--------------------|-----------|----------------------|------|------|-----------|------------------------------|------|------|-----------------------------------------|--|------------|-------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                              | DATE<br>25 Oct 2012 - Thursday                                      |                    |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |       |
| CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                              |                                                                     |                    |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |       |
| Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's reviewed prior to start of work activities.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                              |                                                                     |                    |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |       |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                              |                                                                     |                    |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |       |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |                                                                     |                    |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |       |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                              |                                                                     |                    |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |       |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                              |                                                                     |                    |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |       |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                              |                                                                     |                    |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |       |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>LANDSCAPE CONTRACTOR</td> <td style="text-align: right;">2.0</td> <td style="text-align: right;">16.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total hours worked to date: 4,059.8</td> <td style="text-align: right; border-top: 1px solid black;">Total 3.0</td> <td style="text-align: right; border-top: 1px solid black;">24.0</td> </tr> </tbody> </table>   |                              |                                                                     |                    | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | Moretrech | LANDSCAPE CONTRACTOR | 2.0  | 16.0 | Sovereign | SUPER - JOB                  | 1.0  | 8.0  | Total hours worked to date: 4,059.8     |  | Total 3.0  | 24.0  |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Labor Classification         | Number of<br>Employees                                              | Hours<br>Worked    |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | LANDSCAPE CONTRACTOR         | 2.0                                                                 | 16.0               |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | SUPER - JOB                  | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |       |
| Total hours worked to date: 4,059.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              | Total 3.0                                                           | 24.0               |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |       |
| <b>EQUIPMENT HOURS</b><br><b>The following equipment hours were Reported today:</b> <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle<br/>Hours</th> <th style="text-align: right;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">0.50</td> <td style="text-align: right;">8.00</td> </tr> <tr> <td>N/A</td> <td>Skid Steerer with Power Rake</td> <td style="text-align: right;">0.50</td> <td style="text-align: right;">8.00</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total operating hours to date: 1,046.00</td> <td style="text-align: right; border-top: 1px solid black;">Total 1.00</td> <td style="text-align: right; border-top: 1px solid black;">16.00</td> </tr> </tbody> </table> |                              |                                                                     |                    | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A       | Bull Dozer           | 0.50 | 8.00 | N/A       | Skid Steerer with Power Rake | 0.50 | 8.00 | Total operating hours to date: 1,046.00 |  | Total 1.00 | 16.00 |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Description                  | Idle<br>Hours                                                       | Operating<br>Hours |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Bull Dozer                   | 0.50                                                                | 8.00               |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Skid Steerer with Power Rake | 0.50                                                                | 8.00               |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |       |
| Total operating hours to date: 1,046.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                              | Total 1.00                                                          | 16.00              |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |       |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |                                                                     |                    |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                              |                                                                     |                    |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |       |
| <b>CONTRACTOR CERTIFICATION</b> <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                              |                                                                     |                    |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |       |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | DATE                         | SUPERINTENDENT'S INITIALS                                           | DATE               |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |       |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                      |                                          |             |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                      | REPORT NUMBER<br>910                     | Page 1 of 2 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                      | DATE<br>26 Oct 2012 - Friday             |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                      | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | WEATHER<br>Weather Caused No Delay<br>Temperature Min 50 °F, Max 60 °F; No Precipitation; 5 MPH Wind |                                          |             |
| <b>QC NARRATIVES</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                      |                                          |             |
| <b>Contractor/Subcontractor &amp; Area of Responsibility for work:</b><br>Sovereign - Provided oversight of Gatsby Grounds<br>Gatsby Grounds (sub-contractor to Moretrench) - Site Restoration Contractor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                      |                                          |             |
| <b>Activities in Progress (List by Activity Number)</b><br>DFW: Site Restoration / Demobilization                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                      |                                          |             |
| <b>Quality Control Inspections and Activities (List by Feature of Work)</b><br>Sovereign conducted QC inspections of site restoration activities being conducted during the day.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                      |                                          |             |
| <b>Did anything develop that may lead to a Change Order/Claim?</b><br>No developments that may lead to a Change Order during the day.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                      |                                          |             |
| <b>Were there any Delays in Work Progress today?</b><br>There were no delays in work progress during the day.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                      |                                          |             |
| <b>General Comments:</b><br>Work Completed During the Day:<br><br>Sovereign: Provided project oversight of Gatsby Grounds (sub-contractor to Moretrench) during site restoration activities. Conducted photo documentation of restoration activities. Photograph IDs: 102612-01 through 102612-12.<br><br>Gatsby Grounds (sub-contractor to Moretrench): Conducted site restoration activities including the completeion of rebuilding of the berm in the vicinity of station 7+00. Final grading was completed in all disturbed area around the barrier wall with a soil conditioner and power-rake. Hydro-seeding was completed from the lead-in trench to approximately station 7+00.<br><br>Materials Brought on Site:<br><br>Hydro-seed<br><br>Equipment Brought on Site:<br><br>Hydro-seeding Truck<br><br>Additional Notes:<br><br>Additonal hydro-seed was needed to complete seeding in the northern portion of the distrubed areas around the barrier wall. Additional seed has been ordered and completion of seeding is scheduled for the following week depending on site conditions and weather. |                                                                                                      |                                          |             |
| <b>Verbal Instructions given by Government:</b><br>No other verbal instruction given during the day by the government.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                      |                                          |             |
| <b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviued prior to start of work activties.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                      |                                          |             |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                      |                                          |             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                      |                                          |             |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                              | REPORT NUMBER<br>910                     |                           | Page 2 of 2 |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|------------------------------------------|---------------------------|-------------|---------------|----------------------|------------------------|--------------------|-----------|----------------------|------|------|-----------|------------------------------|------|------|-----------------------------------------|--|------------|------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              | DATE<br>26 Oct 2012 - Friday             |                           |             |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |      |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                              | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |                           |             |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |      |
| <b>ACTIVITY START/FINISH</b><br>No activities were started or finished today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                              |                                          |                           |             |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |      |
| <b>QC REQUIREMENTS</b><br>No QC requirements were completed today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                              |                                          |                           |             |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |      |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br>No QC Deficiency items were issued today<br>No Deficiency items were corrected today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                              |                                          |                           |             |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |      |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br>No contractors had their first or last day on site today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |                                          |                           |             |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |      |
| <b>LABOR HOURS</b><br>The following labor hours were Reported today: <table border="0" style="width: 100%;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>LANDSCAPE CONTRACTOR</td> <td style="text-align: right;">2.0</td> <td style="text-align: right;">14.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">7.0</td> </tr> <tr> <td colspan="2">Total hours worked to date: 4,080.8</td> <td style="text-align: right;">Total 3.0</td> <td style="text-align: right;">21.0</td> </tr> </tbody> </table>           |                              |                                          |                           |             | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | Moretrech | LANDSCAPE CONTRACTOR | 2.0  | 14.0 | Sovereign | SUPER - JOB                  | 1.0  | 7.0  | Total hours worked to date: 4,080.8     |  | Total 3.0  | 21.0 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Labor Classification         | Number of<br>Employees                   | Hours<br>Worked           |             |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | LANDSCAPE CONTRACTOR         | 2.0                                      | 14.0                      |             |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | SUPER - JOB                  | 1.0                                      | 7.0                       |             |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |      |
| Total hours worked to date: 4,080.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                              | Total 3.0                                | 21.0                      |             |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |      |
| <b>EQUIPMENT HOURS</b><br>The following equipment hours were Reported today: <table border="0" style="width: 100%;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle<br/>Hours</th> <th style="text-align: right;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Hydro-Seeding Truck</td> <td style="text-align: right;">4.00</td> <td style="text-align: right;">3.00</td> </tr> <tr> <td>N/A</td> <td>Skid Steerer with Power Rake</td> <td style="text-align: right;">3.00</td> <td style="text-align: right;">4.00</td> </tr> <tr> <td colspan="2">Total operating hours to date: 1,053.00</td> <td style="text-align: right;">Total 7.00</td> <td style="text-align: right;">7.00</td> </tr> </tbody> </table> |                              |                                          |                           |             | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A       | Hydro-Seeding Truck  | 4.00 | 3.00 | N/A       | Skid Steerer with Power Rake | 3.00 | 4.00 | Total operating hours to date: 1,053.00 |  | Total 7.00 | 7.00 |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Description                  | Idle<br>Hours                            | Operating<br>Hours        |             |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Hydro-Seeding Truck          | 4.00                                     | 3.00                      |             |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Skid Steerer with Power Rake | 3.00                                     | 4.00                      |             |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |      |
| Total operating hours to date: 1,053.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                              | Total 7.00                               | 7.00                      |             |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |      |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br>No accidents reported today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                              |                                          |                           |             |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |                                          |                           |             |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |      |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |                                          |                           |             |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |      |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                              | DATE                                     | SUPERINTENDENT'S INITIALS |             |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |                                          |                           |             |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |      |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                       |                                          |             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                       | REPORT NUMBER<br>920                     | Page 1 of 2 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                       | DATE<br>05 Nov 2012 - Monday             |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                       | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | WEATHER<br>Weather Caused No Delay<br>Temperature Min 38 °F, Max 45 °F; No Precipitation; 10 MPH Wind |                                          |             |
| <b>QC NARRATIVES</b><br><br><b>Contractor/Subcontractor &amp; Area of Responsibility for work:</b><br>Sovereign - Provided oversight of Gatsby Grounds<br>Gatsby Grounds (sub-contractor to Moretrench) - Site Restoration Contractor<br><br><b>Activities in Progress (List by Activity Number)</b><br>DFW: Site Restoration / Demobilization<br><br><b>Quality Control Inspections and Activities (List by Feature of Work)</b><br>Sovereign conducted QC inspections of site restoration / hydro-seeding activities being conducted during the day.<br><br><b>Did anything develop that may lead to a Change Order/Claim?</b><br>No developments that may lead to a Change Order during the day.<br><br><b>Were there any Delays in Work Progress today?</b><br>There were no delays in work progress during the day.<br><br><b>General Comments:</b><br>Work Completed During the Day:<br><br>Sovereign: Provided project oversight of Gatsby Grounds (sub-contractor to Moretrench) during site restoration/hydro-seeding activities.<br><br>Gatsby Grounds (sub-contractor to Moretrench): Conducted hydro-seeding from approximately station 7+00. to approximately 100 feet north of station 8+50<br><br>Materials Brought on Site:<br><br>Hydro-seed<br><br>Equipment Brought on Site:<br><br>Hydro-seeding Truck<br><br>Additional Notes:<br><br>None.<br><br><b>Verbal Instructions given by Government:</b><br>No other verbal instruction given during the day by the government.<br><br><b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's reviewed prior to start of work activities. |                                                                                                       |                                          |             |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                       |                                          |             |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                       |                                          |             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                       |                                          |             |



| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                      | REPORT NUMBER<br>920                     |                           | Page 2 of 2 |          |                      |                        |                 |           |                      |     |     |           |             |     |     |                                     |  |           |     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------------------------------|---------------------------|-------------|----------|----------------------|------------------------|-----------------|-----------|----------------------|-----|-----|-----------|-------------|-----|-----|-------------------------------------|--|-----------|-----|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                      | DATE<br>05 Nov 2012 - Monday             |                           |             |          |                      |                        |                 |           |                      |     |     |           |             |     |     |                                     |  |           |     |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                      | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |                           |             |          |                      |                        |                 |           |                      |     |     |           |             |     |     |                                     |  |           |     |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                      |                                          |                           |             |          |                      |                        |                 |           |                      |     |     |           |             |     |     |                                     |  |           |     |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                      |                                          |                           |             |          |                      |                        |                 |           |                      |     |     |           |             |     |     |                                     |  |           |     |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                      |                                          |                           |             |          |                      |                        |                 |           |                      |     |     |           |             |     |     |                                     |  |           |     |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table border="0" style="width: 100%;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>LANDSCAPE CONTRACTOR</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">3.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">3.0</td> </tr> <tr> <td colspan="2">Total hours worked to date: 4,086.8</td> <td style="text-align: right;">Total 2.0</td> <td style="text-align: right;">6.0</td> </tr> </tbody> </table> |                      |                                          |                           |             | Employer | Labor Classification | Number of<br>Employees | Hours<br>Worked | Moretrech | LANDSCAPE CONTRACTOR | 1.0 | 3.0 | Sovereign | SUPER - JOB | 1.0 | 3.0 | Total hours worked to date: 4,086.8 |  | Total 2.0 | 6.0 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Labor Classification | Number of<br>Employees                   | Hours<br>Worked           |             |          |                      |                        |                 |           |                      |     |     |           |             |     |     |                                     |  |           |     |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | LANDSCAPE CONTRACTOR | 1.0                                      | 3.0                       |             |          |                      |                        |                 |           |                      |     |     |           |             |     |     |                                     |  |           |     |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | SUPER - JOB          | 1.0                                      | 3.0                       |             |          |                      |                        |                 |           |                      |     |     |           |             |     |     |                                     |  |           |     |
| Total hours worked to date: 4,086.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                      | Total 2.0                                | 6.0                       |             |          |                      |                        |                 |           |                      |     |     |           |             |     |     |                                     |  |           |     |
| <b>EQUIPMENT HOURS</b><br><b>No equipment hours were Reported today</b><br>Total operating hours to date: 1,053.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                      |                                          |                           |             |          |                      |                        |                 |           |                      |     |     |           |             |     |     |                                     |  |           |     |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                      |                                          |                           |             |          |                      |                        |                 |           |                      |     |     |           |             |     |     |                                     |  |           |     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                      |                                          |                           |             |          |                      |                        |                 |           |                      |     |     |           |             |     |     |                                     |  |           |     |
| <b>CONTRACTOR CERTIFICATION</b> <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                      |                                          |                           |             |          |                      |                        |                 |           |                      |     |     |           |             |     |     |                                     |  |           |     |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                      | DATE                                     | SUPERINTENDENT'S INITIALS |             | DATE     |                      |                        |                 |           |                      |     |     |           |             |     |     |                                     |  |           |     |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                       |                                          |             |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                       | REPORT NUMBER<br>924                     | Page 1 of 2 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                       | DATE<br>09 Nov 2012 - Friday             |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                       | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | WEATHER<br>Weather Caused No Delay<br>Temperature Min 35 °F, Max 45 °F; No Precipitation; 15 MPH Wind |                                          |             |
| <b>QC NARRATIVES</b><br><br><b>Contractor/Subcontractor &amp; Area of Responsibility for work:</b><br>Sovereign - Provided oversight of WSP Sells and conducted well development activities<br>WSP Sells (sub-contractor to Moretrench) - Survey Contractor<br><br><b>Activities in Progress (List by Activity Number)</b><br>DFW: Site Restoration / Demobilization<br><br><b>Did anything develop that may lead to a Change Order/Claim?</b><br>No developments that may lead to a Change Order during the day.<br><br><b>Were there any Delays in Work Progress today?</b><br>There were no delays in work progress during the day.<br><br><b>General Comments:</b><br>Work Completed During the Day:<br><br>Sovereign: Provided project oversight of WSP Sells (sub-contractor to Moretrench) during final as-built survey activities<br><br>Sovereign field staff developed piezometers PZ-12-05 and PZ-12-07 through PZ-12-10. All development activities were conducted in accordance with US EPA SOP #2044. All piezometers were purged using a wattera pump. Puring was conducted until turbidity readings of groundwater in each piezometer reached 50 NTUs or a two hour maxium purge time was reached. All development field data was collected and recored on Developement Data Forms.<br><br>WSP Sells (sub-contractor to Moretrench): Conducted a final survey of the limit of work area for the barrier wall construction. WSP shot topographic survey of the limit of work area that had been altered during construction and regraded during site restoration activities. WSP also shot location and elevation including Top of Casing elevation of the newly installed piezometers PZ-12-01 through PZ-12-10.<br><br>Materials Brought on Site:<br><br>None<br><br>Equipment Brought on Site:<br><br>Well Development Equipment: Water level meters, PID, Wattera Pumps, Generators, Tubing, Turbidity Meters, and YSI meters.<br><br>Additional Notes:<br><br>None.<br><br><b>Verbal Instructions given by Government:</b><br>No other verbal instruction given during the day by the government.<br><br><b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviuewed prior to start of work activities. |                                                                                                       |                                          |             |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                       |                                          |             |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                       |                                          |             |
| Empty space for additional notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                       |                                          |             |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                      | REPORT NUMBER<br>924 <span style="float: right;">Page 2 of 2</span> |                 |          |                      |                        |                 |           |          |     |      |           |                |     |      |           |             |     |     |                                     |  |           |      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|---------------------------------------------------------------------|-----------------|----------|----------------------|------------------------|-----------------|-----------|----------|-----|------|-----------|----------------|-----|------|-----------|-------------|-----|-----|-------------------------------------|--|-----------|------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                      | DATE<br>09 Nov 2012 - Friday                                        |                 |          |                      |                        |                 |           |          |     |      |           |                |     |      |           |             |     |     |                                     |  |           |      |
| CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                      |                                                                     |                 |          |                      |                        |                 |           |          |     |      |           |                |     |      |           |             |     |     |                                     |  |           |      |
| <b>QC REQUIREMENTS</b><br>No QC requirements were completed today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                      |                                                                     |                 |          |                      |                        |                 |           |          |     |      |           |                |     |      |           |             |     |     |                                     |  |           |      |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br>No QC Deficiency items were issued today<br>No Deficiency items were corrected today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                      |                                                                     |                 |          |                      |                        |                 |           |          |     |      |           |                |     |      |           |             |     |     |                                     |  |           |      |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br>No contractors had their first day on site today<br>Today was the last day on site for the following contractor:<br>Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                      |                                                                     |                 |          |                      |                        |                 |           |          |     |      |           |                |     |      |           |             |     |     |                                     |  |           |      |
| <b>LABOR HOURS</b><br>The following labor hours were Reported today: <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>SURVEYOR</td> <td style="text-align: right;">2.0</td> <td style="text-align: right;">14.0</td> </tr> <tr> <td>Sovereign</td> <td>FIELD ENGINEER</td> <td style="text-align: right;">2.0</td> <td style="text-align: right;">15.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">7.5</td> </tr> <tr> <td colspan="2">Total hours worked to date: 4,123.3</td> <td style="text-align: right;">Total 5.0</td> <td style="text-align: right;">36.5</td> </tr> </tbody> </table> |                      |                                                                     |                 | Employer | Labor Classification | Number of<br>Employees | Hours<br>Worked | Moretrech | SURVEYOR | 2.0 | 14.0 | Sovereign | FIELD ENGINEER | 2.0 | 15.0 | Sovereign | SUPER - JOB | 1.0 | 7.5 | Total hours worked to date: 4,123.3 |  | Total 5.0 | 36.5 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Labor Classification | Number of<br>Employees                                              | Hours<br>Worked |          |                      |                        |                 |           |          |     |      |           |                |     |      |           |             |     |     |                                     |  |           |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | SURVEYOR             | 2.0                                                                 | 14.0            |          |                      |                        |                 |           |          |     |      |           |                |     |      |           |             |     |     |                                     |  |           |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | FIELD ENGINEER       | 2.0                                                                 | 15.0            |          |                      |                        |                 |           |          |     |      |           |                |     |      |           |             |     |     |                                     |  |           |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | SUPER - JOB          | 1.0                                                                 | 7.5             |          |                      |                        |                 |           |          |     |      |           |                |     |      |           |             |     |     |                                     |  |           |      |
| Total hours worked to date: 4,123.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                      | Total 5.0                                                           | 36.5            |          |                      |                        |                 |           |          |     |      |           |                |     |      |           |             |     |     |                                     |  |           |      |
| <b>EQUIPMENT HOURS</b><br>No equipment hours were Reported today<br>Total operating hours to date: 1,053.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                      |                                                                     |                 |          |                      |                        |                 |           |          |     |      |           |                |     |      |           |             |     |     |                                     |  |           |      |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br>No accidents reported today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                      |                                                                     |                 |          |                      |                        |                 |           |          |     |      |           |                |     |      |           |             |     |     |                                     |  |           |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                      |                                                                     |                 |          |                      |                        |                 |           |          |     |      |           |                |     |      |           |             |     |     |                                     |  |           |      |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                      |                                                                     |                 |          |                      |                        |                 |           |          |     |      |           |                |     |      |           |             |     |     |                                     |  |           |      |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | DATE                 | SUPERINTENDENT'S INITIALS                                           | DATE            |          |                      |                        |                 |           |          |     |      |           |                |     |      |           |             |     |     |                                     |  |           |      |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                       |                                          |             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                       | REPORT NUMBER<br>927                     | Page 1 of 2 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                       | DATE<br>12 Nov 2012 - Monday             |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                       | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | WEATHER<br>Weather Caused No Delay<br>Temperature Min 40 °F, Max 60 °F; No Precipitation; 15 MPH Wind |                                          |             |
| <b>QC NARRATIVES</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                       |                                          |             |
| <b>Contractor/Subcontractor &amp; Area of Responsibility for work:</b><br>Sovereign - Conducted well development activities                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                       |                                          |             |
| <b>Activities in Progress (List by Activity Number)</b><br>DFW: Site Restoration / Demobilization                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                       |                                          |             |
| <b>Did anything develop that may lead to a Change Order/Claim?</b><br>No developments that may lead to a Change Order during the day.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                       |                                          |             |
| <b>Were there any Delays in Work Progress today?</b><br>There were no delays in work progress during the day.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                       |                                          |             |
| <b>General Comments:</b><br>Work Completed During the Day:<br><br>Sovereign: Sovereign staff developed piezometers PZ-12-01 through 4 and PZ-12-06. All developement activities were conducted in accordance with US EPA SOP #2044. All piezometers were purged using a wattera pump. Puring was conducted until turbidity readings of groundwater in each piezometer reached 50 NTUs or a two hour maxium purge time was reached. All development field data was collected and recored on Development Data Forms.<br><br>Materials Brought on Site:<br><br>None<br><br>Equipment Brought on Site:<br><br>Well Development Equipment: Water level meters, PID, Wattera Pumps, Generators, Tubing, Turbidity Meters, and YSI meters.<br><br>Additional Notes:<br><br>None. |                                                                                                       |                                          |             |
| <b>Verbal Instructions given by Government:</b><br>No other verbal instruction given during the day by the government.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                       |                                          |             |
| <b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviuewed prior to start of work activties.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                       |                                          |             |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                       |                                          |             |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                       |                                          |             |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                       |                                          |             |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                       |                                          |             |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                      | REPORT NUMBER<br>927                     |                           | Page 2 of 2 |          |                      |                        |                 |           |                |     |     |           |             |     |     |                                     |  |           |      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------------------------------|---------------------------|-------------|----------|----------------------|------------------------|-----------------|-----------|----------------|-----|-----|-----------|-------------|-----|-----|-------------------------------------|--|-----------|------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                      | DATE<br>12 Nov 2012 - Monday             |                           |             |          |                      |                        |                 |           |                |     |     |           |             |     |     |                                     |  |           |      |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                      | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |                           |             |          |                      |                        |                 |           |                |     |     |           |             |     |     |                                     |  |           |      |
| <b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                      |                                          |                           |             |          |                      |                        |                 |           |                |     |     |           |             |     |     |                                     |  |           |      |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                      |                                          |                           |             |          |                      |                        |                 |           |                |     |     |           |             |     |     |                                     |  |           |      |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table border="0" style="width: 100%;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Sovereign</td> <td>FIELD ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">7.5</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">7.5</td> </tr> <tr> <td colspan="2">Total hours worked to date: 4,138.3</td> <td style="text-align: right;">Total 2.0</td> <td style="text-align: right;">15.0</td> </tr> </tbody> </table> |                      |                                          |                           |             | Employer | Labor Classification | Number of<br>Employees | Hours<br>Worked | Sovereign | FIELD ENGINEER | 1.0 | 7.5 | Sovereign | SUPER - JOB | 1.0 | 7.5 | Total hours worked to date: 4,138.3 |  | Total 2.0 | 15.0 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Labor Classification | Number of<br>Employees                   | Hours<br>Worked           |             |          |                      |                        |                 |           |                |     |     |           |             |     |     |                                     |  |           |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | FIELD ENGINEER       | 1.0                                      | 7.5                       |             |          |                      |                        |                 |           |                |     |     |           |             |     |     |                                     |  |           |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | SUPER - JOB          | 1.0                                      | 7.5                       |             |          |                      |                        |                 |           |                |     |     |           |             |     |     |                                     |  |           |      |
| Total hours worked to date: 4,138.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                      | Total 2.0                                | 15.0                      |             |          |                      |                        |                 |           |                |     |     |           |             |     |     |                                     |  |           |      |
| <b>EQUIPMENT HOURS</b><br><b>No equipment hours were Reported today</b><br>Total operating hours to date: 1,053.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                      |                                          |                           |             |          |                      |                        |                 |           |                |     |     |           |             |     |     |                                     |  |           |      |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                      |                                          |                           |             |          |                      |                        |                 |           |                |     |     |           |             |     |     |                                     |  |           |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                      |                                          |                           |             |          |                      |                        |                 |           |                |     |     |           |             |     |     |                                     |  |           |      |
| <b>CONTRACTOR CERTIFICATION</b> <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                      |                                          |                           |             |          |                      |                        |                 |           |                |     |     |           |             |     |     |                                     |  |           |      |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                      | DATE                                     | SUPERINTENDENT'S INITIALS | DATE        |          |                      |                        |                 |           |                |     |     |           |             |     |     |                                     |  |           |      |

|                                                                                     |                                                                                                      |                                          |             |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |                                                                                                      | REPORT NUMBER<br>935                     | Page 1 of 2 |
|                                                                                     |                                                                                                      | DATE<br>20 Nov 2012 - Tuesday            |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |                                                                                                      | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             | WEATHER<br>Weather Caused No Delay<br>Temperature Min 30 °F, Max 40 °F; No Precipitation; 5 MPH Wind |                                          |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Conducted oversight of EQ NE and NE Liner Systems

EQ NE - Loading and Disposal of Waste and Concrete

NE Liner Systems - Landfill Liner Repair

**Activities in Progress (List by Activity Number)**  
 DFW: Site Restoration / Demobilization

**Did anything develop that may lead to a Change Order/Claim ?**  
 No developments that may lead to a Change Order during the day.

**Were there any Delays in Work Progress today?**  
 There were no delays in work progress during the day.

**General Comments:**  
 Work Completed During the Day:

Sovereign: Provided the oversight of EQ NE during the waste/concrete loading for disposal. Provided oversight of NE Liner Systems during the repair of the landfill liner around newly installed piezometers. Took photographic documentation of liner repairs. Photo IDs: 112012-01 and 112012-02.

EQ NE: Completed the loading and off-site disposal of the stockpiled waste and concrete excavated during the construction of the barrier wall. Waste loaded into a trailer for disposal at the Cassella landfill in Southbride, MA. Concrete loaded in a tri-axil truck for disposal/recycling at Boro Sand and Gravel in North Attleboro, MA. Trucking was completed by Goulet Trucking as a subcontractor to EQ NE. Area where waste and concrete was stockpiled was back-bladed with a loader following the completion of loading activities.

NE Liner Systems: Completed the repair of the landfill liner arond piezometers PZ-12-02 through PZ-12-06. Repairs made with 40 mil PVC material and repairs seams were made with chemical agent. See photos 112012-01 and 112012-02 for details on repairs.

Material Brought on Site:

40 mil PVC material and chemical agent (glue).

Equipment Brought on Site:

Catapillar Loader

Additional Notes:

None.

**Verbal Instructions given by Government:**  
 No other verbal instruction given during the day by the government.

**Safety Inspection / Safety Meetings:**  
 Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviued prior to start of work activties.

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                          | REPORT NUMBER<br>935 <span style="float: right;">Page 2 of 2</span> |                    |               |                      |                        |                    |              |                          |      |      |                                         |                 |            |      |                  |                       |     |     |                  |          |     |     |           |             |     |     |                                     |  |           |      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---------------------------------------------------------------------|--------------------|---------------|----------------------|------------------------|--------------------|--------------|--------------------------|------|------|-----------------------------------------|-----------------|------------|------|------------------|-----------------------|-----|-----|------------------|----------|-----|-----|-----------|-------------|-----|-----|-------------------------------------|--|-----------|------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          | DATE<br>20 Nov 2012 - Tuesday                                       |                    |               |                      |                        |                    |              |                          |      |      |                                         |                 |            |      |                  |                       |     |     |                  |          |     |     |           |             |     |     |                                     |  |           |      |
| CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                          |                                                                     |                    |               |                      |                        |                    |              |                          |      |      |                                         |                 |            |      |                  |                       |     |     |                  |          |     |     |           |             |     |     |                                     |  |           |      |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                          |                                                                     |                    |               |                      |                        |                    |              |                          |      |      |                                         |                 |            |      |                  |                       |     |     |                  |          |     |     |           |             |     |     |                                     |  |           |      |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                          |                                                                     |                    |               |                      |                        |                    |              |                          |      |      |                                         |                 |            |      |                  |                       |     |     |                  |          |     |     |           |             |     |     |                                     |  |           |      |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                          |                                                                     |                    |               |                      |                        |                    |              |                          |      |      |                                         |                 |            |      |                  |                       |     |     |                  |          |     |     |           |             |     |     |                                     |  |           |      |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          |                                                                     |                    |               |                      |                        |                    |              |                          |      |      |                                         |                 |            |      |                  |                       |     |     |                  |          |     |     |           |             |     |     |                                     |  |           |      |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>Today was the first day on site for the following 2 contractors:</b><br>EQ Northeast<br>NE Liner Systems<br><b>Today was the last day on site for the following 2 contractors:</b><br>EQ Northeast<br>NE Liner Systems                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                          |                                                                     |                    |               |                      |                        |                    |              |                          |      |      |                                         |                 |            |      |                  |                       |     |     |                  |          |     |     |           |             |     |     |                                     |  |           |      |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>EQ Northeast</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">2.5</td> </tr> <tr> <td>EQ Northeast</td> <td>PROJECT MANAGER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">2.0</td> </tr> <tr> <td>NE Liner Systems</td> <td>LABOR-CREW SUPERVISOR</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">4.0</td> </tr> <tr> <td>NE Liner Systems</td> <td>LABORERS</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">4.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">6.0</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total hours worked to date: 4,156.8</td> <td style="text-align: right; border-top: 1px solid black;">Total 5.0</td> <td style="text-align: right; border-top: 1px solid black;">18.5</td> </tr> </tbody> </table> |                          |                                                                     |                    | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | EQ Northeast | HEAVY-EQUIPMENT OPERATOR | 1.0  | 2.5  | EQ Northeast                            | PROJECT MANAGER | 1.0        | 2.0  | NE Liner Systems | LABOR-CREW SUPERVISOR | 1.0 | 4.0 | NE Liner Systems | LABORERS | 1.0 | 4.0 | Sovereign | SUPER - JOB | 1.0 | 6.0 | Total hours worked to date: 4,156.8 |  | Total 5.0 | 18.5 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Labor Classification     | Number of<br>Employees                                              | Hours<br>Worked    |               |                      |                        |                    |              |                          |      |      |                                         |                 |            |      |                  |                       |     |     |                  |          |     |     |           |             |     |     |                                     |  |           |      |
| EQ Northeast                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | HEAVY-EQUIPMENT OPERATOR | 1.0                                                                 | 2.5                |               |                      |                        |                    |              |                          |      |      |                                         |                 |            |      |                  |                       |     |     |                  |          |     |     |           |             |     |     |                                     |  |           |      |
| EQ Northeast                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | PROJECT MANAGER          | 1.0                                                                 | 2.0                |               |                      |                        |                    |              |                          |      |      |                                         |                 |            |      |                  |                       |     |     |                  |          |     |     |           |             |     |     |                                     |  |           |      |
| NE Liner Systems                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | LABOR-CREW SUPERVISOR    | 1.0                                                                 | 4.0                |               |                      |                        |                    |              |                          |      |      |                                         |                 |            |      |                  |                       |     |     |                  |          |     |     |           |             |     |     |                                     |  |           |      |
| NE Liner Systems                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | LABORERS                 | 1.0                                                                 | 4.0                |               |                      |                        |                    |              |                          |      |      |                                         |                 |            |      |                  |                       |     |     |                  |          |     |     |           |             |     |     |                                     |  |           |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | SUPER - JOB              | 1.0                                                                 | 6.0                |               |                      |                        |                    |              |                          |      |      |                                         |                 |            |      |                  |                       |     |     |                  |          |     |     |           |             |     |     |                                     |  |           |      |
| Total hours worked to date: 4,156.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                          | Total 5.0                                                           | 18.5               |               |                      |                        |                    |              |                          |      |      |                                         |                 |            |      |                  |                       |     |     |                  |          |     |     |           |             |     |     |                                     |  |           |      |
| <b>EQUIPMENT HOURS</b><br><b>The following equipment hours were Reported today:</b> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle<br/>Hours</th> <th style="text-align: right;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">0.00</td> <td style="text-align: right;">2.50</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total operating hours to date: 1,055.50</td> <td style="text-align: right; border-top: 1px solid black;">Total 0.00</td> <td style="text-align: right; border-top: 1px solid black;">2.50</td> </tr> </tbody> </table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                                                                     |                    | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A          | Loader                   | 0.00 | 2.50 | Total operating hours to date: 1,055.50 |                 | Total 0.00 | 2.50 |                  |                       |     |     |                  |          |     |     |           |             |     |     |                                     |  |           |      |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Description              | Idle<br>Hours                                                       | Operating<br>Hours |               |                      |                        |                    |              |                          |      |      |                                         |                 |            |      |                  |                       |     |     |                  |          |     |     |           |             |     |     |                                     |  |           |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Loader                   | 0.00                                                                | 2.50               |               |                      |                        |                    |              |                          |      |      |                                         |                 |            |      |                  |                       |     |     |                  |          |     |     |           |             |     |     |                                     |  |           |      |
| Total operating hours to date: 1,055.50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          | Total 0.00                                                          | 2.50               |               |                      |                        |                    |              |                          |      |      |                                         |                 |            |      |                  |                       |     |     |                  |          |     |     |           |             |     |     |                                     |  |           |      |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                          |                                                                     |                    |               |                      |                        |                    |              |                          |      |      |                                         |                 |            |      |                  |                       |     |     |                  |          |     |     |           |             |     |     |                                     |  |           |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                          |                                                                     |                    |               |                      |                        |                    |              |                          |      |      |                                         |                 |            |      |                  |                       |     |     |                  |          |     |     |           |             |     |     |                                     |  |           |      |
| <b>CONTRACTOR CERTIFICATION</b> <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |                                                                     |                    |               |                      |                        |                    |              |                          |      |      |                                         |                 |            |      |                  |                       |     |     |                  |          |     |     |           |             |     |     |                                     |  |           |      |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | DATE                     | SUPERINTENDENT'S INITIALS                                           | DATE               |               |                      |                        |                    |              |                          |      |      |                                         |                 |            |      |                  |                       |     |     |                  |          |     |     |           |             |     |     |                                     |  |           |      |



## **APPENDIX K**

### **Construction Completion Inspection Documentation**



# MEMO

**To: Mr. Randal LeCuyer, USACE Construction Representative**

**From: Sovereign Consulting, Inc.**

**Date: 11 January, 2013**

**Re: Barrier Wall Construction Final Inspection**

---

The purpose of the memorandum is to present details of a Final Inspection for activities conducted by Sovereign Consulting Inc. (Sovereign) under contract #W912WJ-10-D-0003, Task Order 0002, Task 25 as part of the Barrier Wall Construction Non-Time Critical Removal Action at the Shepley's Hill Landfill (SHL) at the former Fort Devens Army Installation (Fort Devens) located in Devens, Massachusetts (MA).

On 28 November, 2012 a Final Inspection for the Barrier Wall Construction at the SHL was conducted in accordance with the project Contractor Quality Control Plan (CQCP). Present during the inspection was Mr. Jonathan Chaffee, Sovereign On-site QC Manager and yourself. Weather conditions during the inspection were clear with temperatures in the 40 degree Fahrenheit temperature range. No visibility or ground cover issues were present during the inspection.

During the inspection a walk-through of the limit of work associated with the barrier wall construction was completed and results of site restoration activities reviewed. During the inspection no major comments or further instructions were presented to Sovereign by the USACE. Based on the results of the Final Inspection and the issuance of email correspondence on 28 November, 2012 from you to Ms. Ellen Iorio, PE (USACE Project Manager), Sovereign understands that all work items related to the construction of the barrier wall at SHL are considered complete. Please confer with acceptance of this memo

## Chaffee, Jonathan

---

**From:** Lecuyer, Randal J NAE [Randal.J.Lecuyer@usace.army.mil]  
**Sent:** Thursday, January 03, 2013 4:13 PM  
**To:** Chaffee, Jonathan  
**Cc:** Hevner, Thomas; Mothershed, Zachary J NAE  
**Subject:** RE: Barrier Final Inspection Memo (UNCLASSIFIED)

Classification: UNCLASSIFIED  
Caveats: NONE

Jonathan,

The final inspection meeting minutes are accepted.

Thank you,

Randy

-----Original Message-----

From: Chaffee, Jonathan [mailto:jchaffee@sovcon.com]  
Sent: Thursday, January 03, 2013 2:06 PM  
To: Lecuyer, Randal J NAE  
Cc: Hevner, Thomas  
Subject: Barrier Final Inspection Memo

Randy,

Sovereign received your 11/29/12 email sent to Ellen notifying her that a final inspected had been conducted for the Barrier Wall Construction at the project was considered 100% complete. However, it appears that we also have to close the loop in accordance with Section 7.3 of the project CQCP. That section specifies that Sovereign must issue meetings of the final inspection and they must be accepted by USACE.

As such, please review the attached memo and advise on acceptance of the meeting minutes.

Thanks

Jonathan

Jonathan J. Chaffee

Project Manager | email: jchaffee@sovcon.com <mailto:mhanlon@sovcon.com>

phone: 508-339-3200 | fax: 508-339-3248

Sovereign Consulting Inc.

16 Chestnut Street, Suite 520

Foxborough, MA 02035

www.sovcon.com <http://www.sovcon.com/>

Science. Service. Solutions.

PLEASE NOTE: All information transmitted with and contained in this correspondence contains confidential, proprietary or legally privileged information and is intended for use only by the person or entity to which it is addressed. Any review, retransmission, dissemination or other use of, or taking of any action in reliance upon this information by persons or entities other than the intended recipient is prohibited. If you received this communication in error, please notify the sender immediately. Thank you.

Classification: UNCLASSIFIED  
Caveats: NONE



## **APPENDIX L**

### **Response to Comments**

---

**Response to 10 April 2013 MassDEP Comments on  
DRAFT REMOVAL ACTION COMPLETION REPORT  
SHEPLEY HILL LANDFILL BARRIER WALL  
Former Fort Devens Army Installation  
February 2013**

---

**Comment 1** – Section 4.5: For future reference, the report should include a brief summary of the work conducted to design the backfill material (associated data provided in Appendix A).

*Response:* A Section 3.4 has been added to the Removal Action Completion Report (RACR) detailing the backfill material design.

**Comment 2** – Section 4.6.3: Statements indicating that MassDEP agreed with the placement of piezometer screens should be corrected or deleted. MassDEP's August 28, 2012 comments on the removal action workplan included the recommendation to place screens across the water table so that the piezometers could be used to determine cross-wall head differences and assess lateral groundwater flow directions. Because the piezometers were not screened across the water table, water level measurements may not be reliable for determining lateral flow directions and arsenic flux. To address this uncertainty, an assessment should be conducted to determine whether or not water level measurements obtained from these piezometers are representative of the water table, and if they are not, to determine what additional water table control may be needed to assess flow directions and flux.

*Response:* This section has been revised to remove the reference to MassDEP concurrence. However, the Army maintains that the existing construction of the barrier wall piezometer screens is appropriate to determine lateral flow direction across the wall as the aquifer is located in an extremely homogenous medium sand. Hydrogeologically, in an aquifer with no vertical anisotropy with well screens and risers penetrating no confining layers, well screens placed at the surface, in the middle of the aquifer or near the bottom of the aquifer will all result in consistent, reliably groundwater measurements.

**Comment 3** – Appendix F appears to be incomplete; results from one of the 18 backfill samples were not included.

*Response:* Appendix F had been amended to include results of all 18 backfill samples.

---

**Response to 12 April 2013 EPA Comments on  
DRAFT REMOVAL ACTION COMPLETION REPORT  
SHEPLEY HILL LANDFILL BARRIER WALL  
Former Fort Devens Army Installation  
February 2013**

---

**General Comments:**

**Comment 1** - In EPA's May 22, 2012 comment on the Draft Removal Action Work Plan, General Comment 1 referred to EPA Region 1's Office of Site Remediation and Restoration "*Clean and Greener Policy for Contaminated Sites*" and EPA Fact Sheets on Green Remediation Best Management Practices. EPA's comment requested that Army conduct a quantitative or qualitative analysis on whether any implemented Green Remediation changes resulted in reductions to GHG emissions and/or resource use and that Army report this data in the Removal Action Completion Report. Army's response explained that a third party Green and Sustainable Remediation (GSR) study was performed on the Barrier Wall remedy by the US Army Engineering and Support Center, Huntsville (USAESCH), Environmental and Munitions Center of Expertise (EM CX), pursuant to the Department of Defense (DoD) Memorandum "*Consideration of Green and Sustainable Remediation Practices in the Defense Environmental Restoration Program*" (DoD, 2009) and that the results of this evaluation were incorporated into the design. Please add a section into the report to discuss the implemented Green Remediation elements that were incorporated into the design and include, at least, a qualitative analysis on resultant reductions to GHG emissions and/or resource use.

Response: A statement has been included under Section 3.3 of the RACR, stating that the results of a third party Green and Sustainable Remediation (GSR) study on the proposed Barrier Wall remedy as well as other alternatives evaluated during the FFS, performed by the US Army Engineering and Support Center, Huntsville (USAESCH), Environmental and Munitions Center of Expertise (EM CX), pursuant to the Department of Defense (DoD) Memorandum "*Consideration of Green and Sustainable Remediation Practices in the Defense Environmental Restoration Program*" (DoD, 2009) was incorporated into the design.

*It is noted that reductions in GHG emissions and/or resource use was only associated with the heavy diesel power equipment and transportation of borrow material which was provided via a local quarry. As such, a qualitative analysis on resultant reductions to GHG emissions and/or resource use is not appropriate for this scenario and therefore not included.*

**Comment 2** - Overall, the report does not discuss or elaborate on the results of field and quality control data and whether the barrier wall construction adhered to the design as outlined in the 100% Design Submittal and specifications. Nor does it discuss whether the removal action objectives were satisfied. In addition, there is no discussion of any changes to the design that may have been made based on field conditions. Revise the report to include these discussions.

Response: Section 6.0 and associated subsections discuss the both on-site and off-site quality control procedures and testing completed throughout the construction of the barrier wall. Section 6.0

*and associated subsections have been revised to include language elaborating on the results of the quality control data. Additionally, results of all on-site and off-site quality control procedures and testing are included in Appendix E through J.*

*To address the comment on whether the removal action objectives were satisfied, the following statement has been added to Section 11.0 of the RACR:*

*“The installation of the barrier was completed in accordance with the design, set forth in the RAWP, to provide a low permeable barrier from ground surface to the top of competent bedrock in order to mitigate arsenic-in-groundwater flux from SHL to Red Cove/Plow Shop Pond. Results of the removal actions performance monitoring program will be presented and incorporated in the SHL Long-term Monitoring and Maintenance Plan (LTMMMP) Update in fall 2013.”*

*An additional section (Section 4.7) has been added to the RACR documenting modifications made during constructions.*

#### **Specific Comments:**

**Comment 1** - The report states, “The predominant source of the dissolved arsenic emanating from the landfill appears to be naturally occurring arsenic within the aquifer sands and bedrock materials.” As repeatedly stated by EPA in past correspondence, although it may be demonstrated that the mass of arsenic in the overburden soil is larger than the mass of arsenic in the landfill waste, available data clearly show that the landfill waste contains arsenic, and the highest concentration of arsenic in the waste is equal to the highest concentrations found in the soil. Therefore, it must be assumed that landfill waste is contributing arsenic to site groundwater. As further noted by EPA in past correspondence, while recognizing that natural conditions do play a role, EPA does not agree with the Army’s conclusions that arsenic in the aquifer materials is the primary, or predominant, source of dissolved arsenic in groundwater.

*Response: It is noted that the Army disagrees with EPA’s position for the reasons documented in the SAR (Sovereign, 2011), the Army’s Statement of Army Position Following the Withdrawal of the Draft Final Focused Feasibility Study For Shepley’s Hill Landfill, Devens, MA (August 2012), and the scientific publications, that all clearly support the Army’s CSM for SHL.*

**Comment 2** - Section 2.0, Page 3: Paragraphs 3 and 4 discuss Army’s AOC72 risk assessment. As detailed in EPA’s correspondence throughout the AOC72 RI process, EPA disagrees with the Army’s risk assessment language. EPA concludes that the weight of evidence provided in the AOC72 RI supports the conclusion that arsenic and ammonia are likely to be causally associated with adverse ecological impacts in Red Cove. Therefore, EPA concludes that actionable risk under CERCLA has been demonstrated for the Red Cove area of the pond and that risks are likely attributable to Army sources.

*Response: Comment noted, however the paragraphs noted in Section 2.0, Page 3 are an accurate summary of the risk from the weight of evidence put forth in the RI (AMEC, 2010). As such, the Army does not plan to alter the language noted.*

**Comment 3 - Section 4.5.1 and Figure 3, Barrier As-Built Profile:** The report should discuss the differences in bedrock depths depicted in the *Interpretive Subsurface Profile Along Vertical Hydraulic Barrier* (Sheet 6, 100% Design Submission) and Figure 3. Based on review of the report, it appears that subsurface conditions encountered in the field were not consistent with anticipated conditions. Comment on the reasons for the differences and whether the barrier wall meets the design intent to reach competent bedrock and how these differences in bottom elevation depths may potentially impact the performance of the barrier wall.

*Response: As requested a discussion on the differences in bedrock depths between the Interpretive Subsurface Profile Along Vertical Hydraulic Barrier (Sheet 6, 100% Design Submission) and the actual bedrock profile, depicted on Figure 3, have been included in Section 4.5.1 of the RACR.*

**Comment 4 - Section 4.5.1 and Figure 2, Barrier Wall Site Plan:** Section 4.5.1 of the report indicates that station locations were established every 10 feet. However, the figure shows stations at every 100 feet. Please clarify.

*Response: As stated in Specification Section 01351, Paragraph 3.7 excavation and backfill soundings were required to be taken every 20 feet along the trench centerline using a weighted tape. In order to better ensure clean contact with competent bedrock throughout the entire excavation of the trench, we requested the contractor to supersede the specifications and conducted soundings and determined refusal every 10 feet along the trench centerline using a weighted tape as described in Section 4.5.1 of the Draft RACR. The refusal depths at each 10 foot section were used to develop an as-built vertical profile included as Figure 3 of the RACR.*

*Figure 2 is not intended to represent these 10 foot stations as the figure is a general aerial photograph plan meant to illustrate the location of the barrier wall within the Shepley's Hill Landfill and the locations of the barrier in relations to Red Cove/Plow Shop Pond. As-Built Survey plans included as Figure 5 and Figure 6 in the RACR denote 50 and 100 hundred foot station locations professionally surveyed by WSP Sells.*

**Comment 5 - Section 4.5.1 and Appendix E – Results of On-Site QC measurements:**

- Moretrench Reports: There are instances at which the bentonite slurry results (viscosity, density, filtrate loss) are outside the acceptable criteria (see results for 8/20 8/23, 8/27, 8/28, 8/29, 8/30, 8/31, 9/4). Provide comments to address corrective actions and/or the rationale for acceptance of these data.
- There are instances in which Moretrench backfill slope trench depths and quantity of readings do not correlate with Contractors Quality Control Report (QCR) (i.e., 8/20, 8/21 “end of shift” vs. “final trench depths”). Explain the reason for the discrepancies.



Response:

- Bentonite slurry values included under the "Requirement" column on Moretrench Daily QC reports are considered action levels, where adjustments to the slurry would be required following the acknowledgement of the on-site QC testing results. Adjustments to the slurry were made by Moretrench following acknowledgement of the on-site QC testing results outside of the actions levels. Adjustments completed by Moretrench to return the characteristics of the slurry back to below actions levels included the addition of fresh slurry to the trench.
- Moretrench's backfill slope "end of shift" soundings do not correlate with the Contractors QCR "final trench depths" because these values are a measurement of two different parameters. The "final trench depths" included in the Contractors QCR are the depths at which refusal was determined for specific stations by the Engineer during that specific work day. The Moretrench backfill slope "end of shift" soundings of the trench are conducted to determine the location and slope of backfill material in the trench at the end of each work day. The soundings at some locations will not correlate as backfill is added to the trench throughout the work shift. For example, comparing the QCR final trench depth (20.5') at station 1+00 to the Moretrench end of shift value (18.0') on 8/20/12 a difference 2.5' can be seen. This difference is due to the fact that refusal was determined to be at 20.5' at station 1+00 early within the work shift and backfill material, which was added to the trench throughout the day, had slide as expected and was present at station 1+00 by the end of the work shift. Comparing "final trench depths" and "end of shift" soundings at station 1+70 for 8/20/13 it can be seen that both soundings are equal (27.0'). Refusal was determined to be at 27.0' at station 1+70 late within the work shift and backfill material had and was not present at station 1+70 by the end of the work shift.

**Comment 6 - Sections 6.1.2, 6.1.3 and Appendix J (QCRs):**

- 8/15/2012: Two inches of precipitation was noted. There are no comments addressing these conditions. Describe how weather conditions may have potentially affected site activities.
- 8/28/2012: One of the notes indicates that trench soundings (for bedrock) recorded in the morning differed from soundings conducted at the end of the day (by 2 feet) and may have been attributed to sliding of backfill. Please elaborate and consider adding a discussion to the report to address these findings.
- 8/29/2012: The report indicates that the depth of bedrock (vicinity of Station 4+50) was encountered at an unanticipated depth as compared to specifications, based on boring log data. Please elaborate and consider adding a section to the report to address these findings. (Refer to Specific Comment #3).

Response:

- After reviewing historical meteorological data for 8/15/2012 it was determined that the two (2) inches of precipitation noted on the Contractor QCR was a misprint. The review of the historical meteorological data determined that 0.46 inches of precipitation was received on 8/15/12. As noted in the 8/15/12 Contractor QCR a majority of the work completed during

- the day by Moretrench included continued mobilization and site preparatory activities along with mixing and filling of frac-tanks with slurry. The only excavation activities conducted during the day consisted of the excavation of the lead-in trench ceasing at station 0+00. As a majority of the 8/15/2012 work shift included mobilizations activities and only excavation of the lead-in trench was completed towards the end of the work shift the 0.46 inches of precipitation received during the day would have no potential effects on the constructability of the barrier wall. As noted as been added to the 8/15/2012 QCR included in Appendix J to amend the amount of precipitation received at the site during the work shift.
- The 8/28/12 "start of shift" sounding of station 3+20 (20.5') differed from the 8/27/12 "end of shift" sounding (22.4') by 1.9' feet. On the morning of 8/28/12 the sides of the trench in the vicinity of station 3+20 were inspected by the Engineer. As noted in the 8/28/12 Contractor QCR, the inspection revealed no evidence of slough or cave-in of the trench in this area. It was concluded by the Engineer that due to the lack of evidence of sloughing or cave-in that backfill likely slid from stations 3+00 and 3+10 to station 3+20 during the time between the end of the work shift on 8/27/12 and the start of the work shift on 8/28/12. Other evidence supporting the sliding of backfill includes shallower trench depth soundings at stations 3+00 and 3+10 at the end of the shift on 8/27/12 when compared to trench depth sounds during the start of the shift on 8/28/12. It should also be noted that refusal for station 3+20 was determined by the Engineer to be at 34.5' on 8/23/12. Backfill material had been present at station 3+20 since the "end of the shift" soundings on 8/23/12 (32.7').
  - As noted in the 8/29/12 Contractor QCR, a lengthy discussion was held between Sovereign, AMEC, and the USACE about refusal depth at station 4+50. During discussions boring logs and working platform elevations were reviewed in detail. It was concurred that the area of weathered bedrock indicated on the Interpretive Subsurface Profile Along Hydraulic Barrier (Sheet 6, 90% Design Submission) was extrapolated from two (2) boring logs in the vicinity of station 4+50. Boring SHL-11-02 had indicated evidence of weathered bedrock. Boring SHL-11-02 had an approximate off-set of twenty (20) feet from the barrier wall alignment. Boring SHL-12-06 which has an approximate off-set of zero (0) feet from the barrier wall alignment did not indicate evidence of weathered bedrock and a depth of bedrock at 42 feet below ground surface (bgs). Moretrench was unable to excavate deeper than 39.4 feet bgs at station 4+50 following two and half hours of ripping on the station. Additionally, Moretrench worked the station from both directions of the vertex with the excavator. It was determined in the field by Sovereign, AMEC, and the USACE, that Moretrench would work the area for another half an hour the following day and if no progress in a downward trend was made then it would be determined that refusal at station 4+50 had been met. This was completed and Moretrench was not able to excavate past 39.4 feet bgs. It should also be noted that the weather bedrock removed from Interpretive Subsurface Profile Along Hydraulic Barrier (Sheet 6, 100% Design Submission). The above language as been added to Section 6.1.2 of the RACR.

**Comment 7 - Figure 3, As-Built Profile:** Well number "P2-12-08" is shown twice. Please determine if one of the identifiers should be "P2-12-06".

Response: Figure 3, As-Built Profile has been amended to correctly depict the locations of PZ-12-06 and PZ-12-08.

**Comment 8 - Figure 5, As-Built Survey:** Revise the scale of the figure to match the Restoration and Final Conditions Plan (Sheet 5, 100% Design Submission) for comparison purposes and to improve legibility.

Response: The scale of Figure 5, As-Built Survey has been amended to improve legibility. Additionally a Figure 6, Enlarged As-Built Survey has been added to the RACR.

---

**Response to 28 May 2013 EPA Follow-up Comments on  
DRAFT REMOVAL ACTION COMPLETION REPORT  
SHEPLEY HILL LANDFILL BARRIER WALL  
Former Fort Devens Army Installation  
February 2013**

---

**General Comments:**

**EPA Response to RTC General Comment 2** - EPA will need to review the new Section 4.7 upon submittal of the Draft Final RACR.

Response: Comment noted.

**Specific Comments:**

**EPA Response to RTC Specific Comment 3** - EPA will need to review revised Section 4.5.1, upon submittal of the Draft Final RACR.

Response: Comment noted.

**EPA Response to RTC Specific Comment 4** - Please note the term "station" is confusing in the report, since it is used for measuring points, as well as for alignments. Please consider using a different terminology for the measuring point, or add the explanation provided in the responses to the report.

Response: Since the term "station" is used repeatedly in the daily QC Logs as well as other places, we believe it will provide more confusion rather than a benefit in changing the terminology in the report; therefore we have included an explanation of the term in Section 4.5.1 of the Draft Final report.

**EPA Response to RTC Specific Comment 5** - Please add the explanation in the response to Section 4.5.1 of the report and elaborate on the adjustments that were made to the slurry. Consider including a list of those dates for which QC testing results were outside of the action levels and detailing the specific adjustments that were made to the slurry.

Response: The following explanation has been added to Section 6.1.2 rather than Section 4.5.1 of the Draft Final report as Section 6.1.2 details field quality control testing conducted during slurry wall installation as Section 4.5.1 details construction of the slurry wall:

*"As discussed in Section 4.5.1, results of on-site slurry testing were compared to action levels set by project specifications. In the event that results of on-site slurry testing were outside of the action levels, proper adjustments to the slurry within the trench were made by Moretrench to return the characteristics of the slurry back to below actions levels, accomplished by the addition of fresh slurry from the mixing frac-tanks into the trench. All results of on-site QC slurry testing were found by the AMEC project engineer to be acceptable and meet the required project criteria."*

Army's response provides clarification, since the report was unclear on the "final trench sounding" and "final trench depths" as documented in the Contractor's QCR. Add the explanation included in the response to the report and provide clarification on the "end of shift". In addition, EPA requests that Army prepare a summary table that includes: (a) Station/end of shift sounding, (b) final trench depths, (c) date, and (d) notes

*Response: As requested explanations provided in the response have been added to Section 4.5.1 of the Draft Final report to clarify "Final Trench Depths" documented in the Contractor's QCR and Section 6.1.2 to clarify the Backfill Slope "start of shift" and "end of shift" soundings documented within Moretrench QC Reports. The Army is of the opinion that a summary table documenting station/end of shift soundings, final trench depths, date, and notes is not necessary as all this information has been provided within report Figures and Appendices and is most easily understood and interpreted in the Figures.*

---

**Response to 17 July 2013 MassDEP Comments on  
DRAFT FINAL REMOVAL ACTION COMPLETION REPORT  
SHEPLEY HILL LANDFILL BARRIER WALL  
Former Fort Devens Army Installation  
June 2013**

---

**Comment 1** - Section 4.6.3 and 6.3: Text suggesting that MassDEP approved or endorsed the piezometer screen placements (“Based on follow-up discussions with the MassDEP...”; “As agreed upon with the regulators...”; and “...parameters negotiated with all pertinent parties.”) should be deleted from the report. MassDEP’s recommendations for screen placements were conveyed with the August 28, 2012 comments on the removal action workplan.

*Response:* Prior to the installation of the piezometers along the barrier wall, discussions were held with the MassDEP and the EPA regarding piezometer screen placements. The Army maintains that the current piezometer screen placement depths will yield accurate water level data along the barrier wall that can be utilized with other water level data already being collected due to the homogeneity of the formation and lack of confining layers. However, the indicated sections of the text have been revised to remove suggestions that MassDEP approved or endorsed the piezometer screen placements.

**Comment 2** - Appendix F appears to be incomplete; results from one of the 18 backfill samples were not included.

*Response:* Appendix F had been amended to include the results for sample BFM-21. Results of all 18 backfill samples are now included in Appendix F.

| <b>TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR<br/>MANUFACTURER'S CERTIFICATES OF COMPLIANCE</b><br><small>(Read instructions on reverse side prior to initiating this form)</small> |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         | <b>DATE</b><br>August 6, 2012                |                                      | <b>TRANSMITTAL NO:</b><br><b>001</b>                                                                                                                         |                                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| <b>SECTION I - REQUEST FOR APPROVAL OF THE FOLLOWING ITEMS</b> (This section will be initiated by the Contractor)                                                                                           |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
| <b>TO:</b><br>Zachary Mothershed - Project Engineer<br>US Army Corps of Engineers<br>696 Virginia Road<br>Concord, MA 01742-2751                                                                            |                                                                                 |                                                                                                  | <b>FROM:</b><br>Sovereign Consulting, Inc.<br>16 Chestnut Street, Suite 520<br>Foxboro, MA 02035                                                  |                                                                                                                                                                                                                                                                                                                         | <b>CONTRACT NO:</b><br>W912WJ-10-D-0003-0002 |                                      | <b>CHECK ONE:</b><br><input checked="" type="checkbox"/> THIS IS A NEW TRANSMITTAL<br><input type="checkbox"/> THIS IS A RESUBMITTAL OF<br>TRANSMITTAL _____ |                                |
| SPECIFICATION SECTION NO: (Cover only one section with each transmittal)<br><div style="text-align: center; font-weight: bold; font-size: 1.2em;">02215</div>                                               |                                                                                 |                                                                                                  | PROJECT TITLE AND LOCATION:<br><div style="text-align: center;"> <b>Shepley's Hill Landfill<br/>Barrier Wall<br/>Devens, Massachusetts</b> </div> |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
| ITEM<br>NO.<br><br>a.                                                                                                                                                                                       | DESCRIPTION OF ITEM SUBMITTED<br><br>(Type, size, model number, etc.)<br><br>b. | MFG. OR CONTR. CAT.<br>CURVE DRAWING OR<br>BROCHURE NO.<br><br>(See instruction No. 8)<br><br>c. | NO. OF<br>COPIES<br><br>d.                                                                                                                        | CONTRACT REFERENCE<br>DOCUMENT                                                                                                                                                                                                                                                                                          |                                              | FOR CONTRACTOR<br>USE CODE<br><br>g. | VARIATION<br><br>(See instruction<br>No. 6)<br><br>h.                                                                                                        | FORCE<br>USE<br>CODE<br><br>i. |
|                                                                                                                                                                                                             |                                                                                 |                                                                                                  |                                                                                                                                                   | SPEC. PARA.<br>NO.<br><br>e.                                                                                                                                                                                                                                                                                            | DRAWING<br>SHEET NO.<br><br>f.               |                                      |                                                                                                                                                              |                                |
| 1                                                                                                                                                                                                           | Bentonite - Manufacturer                                                        | N/A                                                                                              | 1                                                                                                                                                 | 1.7                                                                                                                                                                                                                                                                                                                     | ~                                            | FIO                                  | ~                                                                                                                                                            |                                |
| 2                                                                                                                                                                                                           | Water Source Chemistry                                                          | N/A                                                                                              | 1                                                                                                                                                 | 1.7                                                                                                                                                                                                                                                                                                                     | ~                                            | FIO                                  | ~                                                                                                                                                            |                                |
| 3                                                                                                                                                                                                           | Backfill Mix Design Report                                                      | N/A                                                                                              | 1                                                                                                                                                 | 1.7                                                                                                                                                                                                                                                                                                                     | ~                                            | FIO                                  | ~                                                                                                                                                            |                                |
| 4                                                                                                                                                                                                           | Off-Site Borrow Source Geotechnical Testing Results                             | N/A                                                                                              | 1                                                                                                                                                 | 1.7                                                                                                                                                                                                                                                                                                                     | ~                                            | FIO                                  | ~                                                                                                                                                            |                                |
|                                                                                                                                                                                                             |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
|                                                                                                                                                                                                             |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
|                                                                                                                                                                                                             |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
|                                                                                                                                                                                                             |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
|                                                                                                                                                                                                             |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
|                                                                                                                                                                                                             |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
|                                                                                                                                                                                                             |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
|                                                                                                                                                                                                             |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
|                                                                                                                                                                                                             |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
|                                                                                                                                                                                                             |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
| REMARKS                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   | I certify that the above submitted items have been reviewed<br>in detail and correct and in strict conformance with the<br>contract drawings and specifications except as otherwise stated.<br><br><div style="text-align: right;"> <u>Thomas B. Hevner</u> <br/>         NAME AND SIGNATURE OF CONTRACTOR       </div> |                                              |                                      |                                                                                                                                                              |                                |
| <b>SECTION II - APPROVAL ACTION</b>                                                                                                                                                                         |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
| ENCLOSURES RETURNED (List by Item No.)                                                                                                                                                                      |                                                                                 |                                                                                                  | NAME, TITLE AND SIGNATURE OF APPROVING AUTHORITY                                                                                                  |                                                                                                                                                                                                                                                                                                                         |                                              |                                      | DATE                                                                                                                                                         |                                |

**Item No. 1 – Bentonite – Manufacturer**





# **SHEPLEY'S HILL LANDFILL BARRIER WALL**

**SUBMITTAL No. 1**

**SPECIFICATION SECTION 02215  
PARAGRAPH 1.7 A  
MANUFACTURE'S CATALOG CERTIFICATES  
AND  
SPECIFICATIONS FOR BENTONITE**

**DATE SUBMITTED**

**JUNE 11, 2012**



## COMPANY



Wyo-Ben Inc. mines, processes, and distributes high quality sodium bentonite products throughout the world. Our three processing facilities located in the heart of the Wyoming bentonite reserves allow us to offer the best in consistent quality and innovative solutions to meet your bentonite needs.

We take pride in supplying products for use in environmental protection, drilling fluids, and industrial applications. Our knowledgeable sales staff and dedicated research people constantly work with customers to develop products meeting the needs in the global marketplace.



For use in drilling operations where premium grade Wyoming Bentonite is desired. HYDROGEL® is a preferred product for use in oil and gas exploration drilling. It is also used in slurry trenching, caisson boring, and cast-in-place concrete foundations.

**PRODUCT CHARACTERISTICS:**

- Manufactured to exceed API 13A, Section 9 specifications.
- 200 mesh viscosity builder.
- Yields excellent fluid loss characteristics.
- Assists in stabilizing the bore hole or trench walls.

| PRODUCT SPECIFICATIONS                               | A.P.I. Specifications<br>13-A, Sec. 9-2004 | Typical HYDROGEL® |
|------------------------------------------------------|--------------------------------------------|-------------------|
| Barrel Yield                                         | --                                         | 96 ± 5            |
| Viscometer Reading at 600 rpm                        | 30 Min.                                    | 36 ± 6            |
| Water Loss                                           | 15.0 cc Max.                               | 13.5 ± 1          |
| % through 200 Mesh Screen                            | --                                         | 80 ± 4            |
| Wet Screen Analysis Residue on<br>U.S. Sieve No. 200 | 4.0% Max.                                  | 3.0 ± .5          |
| % Moisture                                           | --                                         | 8 ± 2             |
| pH                                                   | --                                         | 9.0 ± 1.0         |
| Gel Strength—10 sec                                  | --                                         | 4 ± 1             |
| Gel Strength—10 min                                  | --                                         | 12 ± 3            |
| Plastic Viscosity                                    | --                                         | 12 ± 2            |
| Yield Point, lb/100 sq. ft.                          | 3 x P.V. Max.                              | 16 ± 2            |

**APPLICATION RATE**

Mix 20 to 50 pounds per 100 gallons of make-up water. This product is designed to be flushed out of the well bore prior to using the well for drinking water. Before placing a well in service for drinking water it is to be properly flushed and drained until the turbidity of the water is <1 NTU above ambient turbidity.

HYDROGEL® is available in 50 pound and 100 pound multi-walled paper bags, bulk bags, or bulk.

**WYO-BEN, INC.**

**P.O. Box 1979**

**Billings, Montana 59103**

**Internet: [www.wyoben.com](http://www.wyoben.com)**

**email: [email@wyoben.com](mailto:email@wyoben.com)**

**800-548-7055 or (406) 652-6351**

## **Item No. 2 – Water Source Chemistry**

## Hevner, Thomas

---

**From:** Hevner, Thomas  
**Sent:** Friday, July 13, 2012 9:43 AM  
**To:** rcardoza@mtac.com  
**Cc:** Chaffee, Jonathan; Marc Cicalese (mcicalese@sovcon.com); Lyle Tracy (lyle.tracy@amec.com); Dave Mueller (dmueller@mtac.com)  
**Subject:** FW: Devens water quality data  
**Attachments:** CANON2NDFLDEVENS\_EXCHANGE\_07122012-161143.PDF

Rich –

Attached is the testing data for the water that you are going to be using from the hydrant for the barrier wall.

Let me know if you need anything else.

Best Regards,

\* Tom \*

---

**From:** Cohen, Mark [<mailto:MCohen@Massdevelopment.com>]  
**Sent:** Thursday, July 12, 2012 4:20 PM  
**To:** Hevner, Thomas  
**Subject:** Devens water quality data

Tom,

Attached water quality data for the 3 wells that are active is from samples collected August 2011, which I believe is the most recent testing that was done for these parameters. The pH shown for MacPherson Well is 7.70, which is higher than we currently run the well (typically around pH 7.2).

--- Mark



## Secondary Contaminant Report

I. PWS INFORMATION: Please refer to your DEP Water Quality Sampling Schedule (WQSS) to help complete this form

PWS ID #: 2019001

City / Town: AYER

PWS Name: Devens Mass Development

PWS Class: COM ☒ NTNC ☐ TNC ☐

| DEP LOCATION (LOC) ID#                                                                                                | DEP Location Name                                                  | Sample Information                                                                                                                                             | Date Collected                                                                                                   | Collected By                           |
|-----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| A 03G                                                                                                                 | Mcperson Well: Finished Water                                      | <input type="checkbox"/> (M)ultiple <input checked="" type="checkbox"/> (S)ingle <input type="checkbox"/> (R)aw <input checked="" type="checkbox"/> (F)inished | 8/30/2011                                                                                                        | P.R.                                   |
| B 05G                                                                                                                 | Patton Replacement Well: Finished Wate                             | <input type="checkbox"/> (M)ultiple <input checked="" type="checkbox"/> (S)ingle <input type="checkbox"/> (R)aw <input checked="" type="checkbox"/> (F)inished | 8/30/2011                                                                                                        | P.R.                                   |
| If Resubmitted Report, list below:                                                                                    |                                                                    |                                                                                                                                                                |                                                                                                                  |                                        |
| Routine or Special Sample                                                                                             |                                                                    | Original, Resubmitted or Confirmation Report                                                                                                                   | (1) Reason for Resubmission                                                                                      | (2) Collection Date of Original Sample |
| A                                                                                                                     | <input checked="" type="checkbox"/> RS <input type="checkbox"/> SS | <input checked="" type="checkbox"/> Original <input type="checkbox"/> Resubmitted <input type="checkbox"/> Confirmation                                        | <input type="checkbox"/> Resample <input type="checkbox"/> Reanalysis <input type="checkbox"/> Report Correction |                                        |
| B                                                                                                                     | <input checked="" type="checkbox"/> RS <input type="checkbox"/> SS | <input checked="" type="checkbox"/> Original <input type="checkbox"/> Resubmitted <input type="checkbox"/> Confirmation                                        | <input type="checkbox"/> Resample <input type="checkbox"/> Reanalysis <input type="checkbox"/> Report Correction |                                        |
| SAMPLE NOTES – (Such as, if a Manifold/Multiple sample, list any sources that were on-line during sample collection). |                                                                    |                                                                                                                                                                |                                                                                                                  |                                        |
| A                                                                                                                     |                                                                    |                                                                                                                                                                |                                                                                                                  |                                        |
| B                                                                                                                     |                                                                    |                                                                                                                                                                |                                                                                                                  |                                        |

## II. ANALYTICAL LABORATORY INFORMATION:

Primary Lab MA Cert. #:

M-R1010

Primary Lab Name:

New England Testing Lab

Subcontracted? (Y/N)

N

Analysis Lab MA Cert. #:

Analysis Lab Name:

| Compound                                                                                                     | Results |       | SMCL    | MDL (mg/L) | Lab Method   | Date Analyzed | Lab Sample ID# |
|--------------------------------------------------------------------------------------------------------------|---------|-------|---------|------------|--------------|---------------|----------------|
|                                                                                                              | A       | B     |         |            |              |               |                |
| IRON (mg/L)                                                                                                  | ND      | ND    | 0.3     | 0.05       | SM 3120B     | 9/2/2011      | W0830-16       |
| MANGANESE (mg/L)                                                                                             | 0.086   | 0.128 | 0.05*   | 0.005      | SM 3120B     | 9/2/2011      | W0830-16       |
| ALKALINITY (mg/L as CaCO3)                                                                                   | 85      | 117   | None    | 2          | SM 2320B     | 9/1/2011      | W0830-16       |
| CALCIUM (mg/L)                                                                                               | 36.0    | 45.2  | None    | 0.05       | SM 3120B     | 9/2/2011      | W0830-16       |
| MAGNESIUM (mg/L)                                                                                             | 5.27    | 5.18  | None    | 0.05       | SM 3120B     | 9/2/2011      | W0830-16       |
| HARDNESS (mg/L as CaCO3)                                                                                     | 112     | 134   | None    | 0.33       | SM 2340C     | 9/2/2011      | W0830-16       |
| POTASSIUM (mg/L)                                                                                             | 30.5    | 4.2   | None    | 0.5        | SM 3120B     | 9/2/2011      | W0830-16       |
| TURBIDITY (NTU)                                                                                              | 0.1     | 0.1   | None    | 0.1        | SM 2130B     | 8/30/2011     | W0830-16       |
| ALUMINUM (mg/L)                                                                                              | ND      | ND    | 0.2     | 0.05       | SM 3120B     | 9/2/2011      | W0830-16       |
| CHLORIDE (mg/L)                                                                                              | 90      | 31    | 250     | 1          | SM 4500Cl-B  | 8/31/2011     | W0830-16       |
| COLOR (C.U.)                                                                                                 | <5      | <5    | 15      | NA         | SM 2120E     | 8/30/2011     | W0830-16       |
| COPPER (mg/L)                                                                                                | 0.05    | 0.03  | 1       | 0.02       | SM 3120B     | 9/2/2011      | W0830-16       |
| ODOR (T.O.N)                                                                                                 | 1       | 1     | 3       | NA         | SM 2150B     | 8/30/2011     | W0830-16       |
| pH                                                                                                           | 7.70    | 7.33  | 6.5-8.5 | NA         | SM 4500H+B   | 8/30/2011     | W0830-16       |
| SILVER (mg/L)                                                                                                | ND      | ND    | 0.10    | 0.0005     | SM 3113B     | 9/2/2011      | W0830-16       |
| SULFATE (mg/L)                                                                                               | 40      | ND    | 250     | 2          | SM 4500SO4-D | 9/1/2011      | W0830-16       |
| TDS (mg/L)                                                                                                   | 264     | 204   | 500     | 10         | SM 2540C     | 8/31/2011     | W0830-16       |
| ZINC (mg/L)                                                                                                  | ND      | ND    | 5       | 0.02       | SM 3120B     | 9/2/2011      | W0830-16       |
| * EPA has established a lifetime Health Advisory (HA) for manganese at 0.3 mg/L and an acute HA at 1.0 mg/L. |         |       |         |            |              |               |                |
| LAB SAMPLE NOTES                                                                                             |         |       |         |            |              |               |                |
| A                                                                                                            |         |       |         |            |              |               |                |
| B                                                                                                            |         |       |         |            |              |               |                |

I certify under penalties of law that I am the person authorized to fill out this form and the information contained herein is true, accurate and complete to the best extent of my knowledge.

Primary Lab Director Signature:

Date: 9/6/2011

If not submitting these results electronically, mail TWO copies of this report to your DEP Regional Office no later than 10 days after the end of the month in which you received this report or no later than 10 days after the end of the reporting period, whichever is sooner.

|                                                                                    |                 |                                            |
|------------------------------------------------------------------------------------|-----------------|--------------------------------------------|
| DEP REVIEW STATUS (Initial & Date)                                                 | Review Comments | <input type="checkbox"/> WQTS Data Entered |
| <input type="checkbox"/> Accepted _____ <input type="checkbox"/> Disapproved _____ |                 |                                            |



## Secondary Contaminant Report

I. PWS INFORMATION: Please refer to your DEP Water Quality Sampling Schedule (WQSS) to help complete this form

PWS ID #: 2019001

City / Town: AYER

PWS Name: Devens Mass Development

PWS Class: COM ☒ NTNC ☐ TNC ☐

| DEP LOCATION (LOC) ID#                                                                                                | DEP Location Name                                                  | Sample Information                                                                                                                                                      | Date Collected                                                                                                   | Collected By                           |
|-----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| A 06G                                                                                                                 | Shabokin Replacement Well: Finished Wa                             | <input type="checkbox"/> (M)ultiple<br><input checked="" type="checkbox"/> (S)ingle<br><input type="checkbox"/> (R)aw<br><input checked="" type="checkbox"/> (F)inished | 8/30/2011                                                                                                        | P.R.                                   |
| B                                                                                                                     |                                                                    | <input type="checkbox"/> (M)ultiple<br><input type="checkbox"/> (S)ingle<br><input type="checkbox"/> (R)aw<br><input type="checkbox"/> (F)inished                       |                                                                                                                  |                                        |
| Routine or Special Sample                                                                                             |                                                                    | Original, Resubmitted or Confirmation Report                                                                                                                            | If Resubmitted Report, list below:                                                                               |                                        |
|                                                                                                                       |                                                                    |                                                                                                                                                                         | (1) Reason for Resubmission                                                                                      | (2) Collection Date of Original Sample |
| A                                                                                                                     | <input checked="" type="checkbox"/> RS <input type="checkbox"/> SS | <input checked="" type="checkbox"/> Original <input type="checkbox"/> Resubmitted <input type="checkbox"/> Confirmation                                                 | <input type="checkbox"/> Resample <input type="checkbox"/> Reanalysis <input type="checkbox"/> Report Correction |                                        |
| B                                                                                                                     | <input type="checkbox"/> RS <input type="checkbox"/> SS            | <input type="checkbox"/> Original <input type="checkbox"/> Resubmitted <input type="checkbox"/> Confirmation                                                            | <input type="checkbox"/> Resample <input type="checkbox"/> Reanalysis <input type="checkbox"/> Report Correction |                                        |
| SAMPLE NOTES - (Such as, if a Manifold/Multiple sample, list any sources that were on-line during sample collection). |                                                                    |                                                                                                                                                                         |                                                                                                                  |                                        |
| A                                                                                                                     |                                                                    |                                                                                                                                                                         |                                                                                                                  |                                        |
| B                                                                                                                     |                                                                    |                                                                                                                                                                         |                                                                                                                  |                                        |

## II. ANALYTICAL LABORATORY INFORMATION:

Primary Lab MA Cert. #:

M-RI010

Primary Lab Name:

New England Testing Lab

Subcontracted? (Y/N)

N

Analysis Lab MA Cert. #:

Analysis Lab Name:

| Compound                                                                                                     | Results |   | SMCL    | MDL (mg/L) | Lab Method   | Date Analyzed | Lab Sample ID# |
|--------------------------------------------------------------------------------------------------------------|---------|---|---------|------------|--------------|---------------|----------------|
|                                                                                                              | A       | B |         |            |              |               |                |
| IRON (mg/L)                                                                                                  | ND      |   | 0.3     | 0.05       | SM 3120B     | 9/2/2011      | W0830-16       |
| MANGANESE (mg/L)                                                                                             | 0.063   |   | 0.05*   | 0.005      | SM 3120B     | 9/2/2011      | W0830-16       |
| ALKALINITY (mg/L as CaCO3)                                                                                   | 100     |   | None    | 2          | SM 2320B     |               | W0830-16       |
| CALCIUM (mg/L)                                                                                               | 38.3    |   | None    | 0.05       | SM 3120B     | 9/2/2011      | W0830-16       |
| MAGNESIUM (mg/L)                                                                                             | 3.88    |   | None    | 0.05       | SM 3120B     | 9/2/2011      | W0830-16       |
| HARDNESS (mg/L as CaCO3)                                                                                     | 112     |   | None    | 0.33       | SM 2340C     | 9/2/2011      | W0830-16       |
| POTASSIUM (mg/L)                                                                                             | 2.7     |   | None    | 0.5        | SM 3120B     | 9/2/2011      | W0830-16       |
| TURBIDITY (NTU)                                                                                              | 0.1     |   | None    | 0.1        | SM 2130B     | 8/30/2011     | W0830-16       |
| ALUMINUM (mg/L)                                                                                              | ND      |   | 0.2     | 0.05       | SM 3120B     | 9/2/2011      | W0830-16       |
| CHLORIDE (mg/L)                                                                                              | 22      |   | 250     | 1          | SM 4500CI-B  | 8/31/2011     | W0830-16       |
| COLOR (C.U.)                                                                                                 | <5      |   | 15      | NA         | SM 2120E     | 8/30/2011     | W0830-16       |
| COPPER (mg/L)                                                                                                | ND      |   | 1       | 0.02       | SM 3120B     | 9/2/2011      | W0830-16       |
| ODOR (T.O.N)                                                                                                 | 1       |   | 3       | NA         | SM 2150B     | 8/30/2011     | W0830-16       |
| pH                                                                                                           | 7.59    |   | 6.5-8.5 | NA         | SM 4500H+B   | 8/30/2011     | W0830-16       |
| SILVER (mg/L)                                                                                                | ND      |   | 0.10    | 0.0005     | SM 3113B     | 9/2/2011      | W0830-16       |
| SULFATE (mg/L)                                                                                               | 10      |   | 250     | 2          | SM 4500SO4-D | 9/1/2011      | W0830-16       |
| TDS (mg/L)                                                                                                   | 96      |   | 500     | 10         | SM 2540C     | 8/31/2011     | W0830-16       |
| ZINC (mg/L)                                                                                                  | ND      |   | 5       | 0.02       | SM 3120B     | 9/2/2011      | W0830-16       |
| * EPA has established a lifetime Health Advisory (HA) for manganese at 0.3 mg/L and an acute HA at 1.0 mg/L. |         |   |         |            |              |               |                |
| LAB SAMPLE NOTES                                                                                             |         |   |         |            |              |               |                |
| A                                                                                                            |         |   |         |            |              |               |                |
| B                                                                                                            |         |   |         |            |              |               |                |

I certify under penalties of law that I am the person authorized to fill out this form and the information contained herein is true, accurate and complete to the best extent of my knowledge.

Primary Lab Director Signature:

Date: 9/6/2011

If not submitting these results electronically, mail TWO copies of this report to your DEP Regional Office no later than 10 days after the end of the month in which you received this report or no later than 10 days after the end of the reporting period, whichever is sooner.

|                                                                                    |                 |                                            |
|------------------------------------------------------------------------------------|-----------------|--------------------------------------------|
| DEP REVIEW STATUS (Initial & Date)                                                 | Review Comments | <input type="checkbox"/> WQTS Data Entered |
| <input type="checkbox"/> Accepted _____ <input type="checkbox"/> Disapproved _____ |                 |                                            |

### **Item No. 3 – Backfill Mix Design Report**





*Technologies to manage risk  
for infrastructure*

Atlanta  
Boston  
Chicago  
New York  
San Francisco

[www.geotesting.com](http://www.geotesting.com)

July 25, 2012

Richard Cardoza  
Moretrench American Corp.  
100 Stickle Avenue, P.O. Box 316  
Rockaway, NJ 07866

RE: Shepley Landfill, Devens, MA (GTX-11659)

Dear Richard:

Enclosed are the test results you requested for the above referenced project. GeoTesting Express, Inc. (GTX) received seven samples from you between 3/29/2012 and 6/11/2012. These samples were labeled as follows:

CLAY / SILT (Graves)

No. 1

No. 3

No. 4

No. 5

No. 6

SHL-11 (permeant)

GTX performed the following tests on these samples:

1 ASTM D 422 - Grain Size Analysis with Hydrometer

3 ASTM D 422 - Grain Size Analyses (sieve only)

3 ASTM D 4318 - Atterberg Limits

2 ASTM D 4972 - pH

2 ASTM D 5084 - Flexible Wall Permeability

GTX also received a Hydrogel Bentonite sample from you on 04/24/12. As requested, GTX prepared a slurry sample using this Hydrogel sample and the sample No. 3 water provided. The slurry was 6% Hydrogel. GTX performed the following tests on this slurry sample:

API PP 13B-1 - Unit Weight

API PP 13B-1 - Marsh Viscosity

API PP 13B-1 - Filter Press

API PP 13B-1 - pH

GTX then prepared two Mix samples as follows;

Mix 1: 50% sample No. 6 with 50% Graves sample with 0.5% dry Hydrogel bentonite .

Mix 2: 50% sample No. 5 with 50% Graves sample with 0.5% dry Hydrogel bentonite .



*Technologies to manage risk  
for infrastructure*

Atlanta  
Boston  
Chicago  
New York  
San Francisco

[www.geotesting.com](http://www.geotesting.com)

The 6% slurry was then added to each mix until the material exhibited a slump of 3 to 6 inches. The following tests were then performed on each mix sample;

ASTM D 422 - Grain Size Analysis with Hydrometer  
ASTM D 4318 - Atterberg Limits  
ASTM D 5084 - Flexible Wall Permeability

GTX was also asked to add another 0.5% hydrogel to Mix 2 and perform an additional ASTM D 5084 - Flexible Wall Permeability. GTX also used this same test specimen to run another permeability using the SHL-11 (permeant) provided by you as the permeant for the test. This result is also included.

See the attached test reports for all results.

The results presented in this report apply only to the items tested. This report shall not be reproduced except in full, without written approval from GeoTesting Express. The remainder of these samples will be retained for a period of sixty (60) days and will then be discarded unless otherwise notified by you. Please call me if you have any questions or require additional information. Thank you for allowing GeoTesting Express the opportunity of providing you with testing services. We look forward to working with you again in the future.

Respectfully yours,

A handwritten signature in blue ink, appearing to read "Joe Tomei", with a stylized flourish extending to the right.

Joe Tomei  
Laboratory Manager



*Technologies to manage risk  
for infrastructure*

Atlanta  
Boston  
Chicago  
New York  
San Francisco  
[www.geotesting.com](http://www.geotesting.com)

---

## **Geotechnical Test Report**

**7/25/2012**

---

# **GTX-11659**

## **Shepley Landfill**

**Devens, MA**

Prepared for:

**Moretrench American Corp.**

---



|            |                           |              |           |
|------------|---------------------------|--------------|-----------|
| Client:    | Moretrench American Corp. |              |           |
| Project:   | Shepley Landfill          |              |           |
| Location:  | Devens, MA                | Project No:  | GTX-11659 |
| Boring ID: | ---                       | Sample Type: | ---       |
| Sample ID: | ---                       | Test Date:   | 05/03/12  |
| Depth :    | ---                       | Test Id:     | 235134    |
|            |                           | Tested By:   | jek       |
|            |                           | Checked By:  | jdt       |

## pH of Soil by ASTM D 4972

| Boring ID | Sample ID | Depth | Visual Description | pH  |
|-----------|-----------|-------|--------------------|-----|
| ---       | No. 1     | ---   | Water sample       | 5.8 |
| ---       | No. 3     | ---   | Water sample       | 6.2 |

Notes: solution water; 10 ml : 10g soil

Sample Preparation: screened through #10 sieve

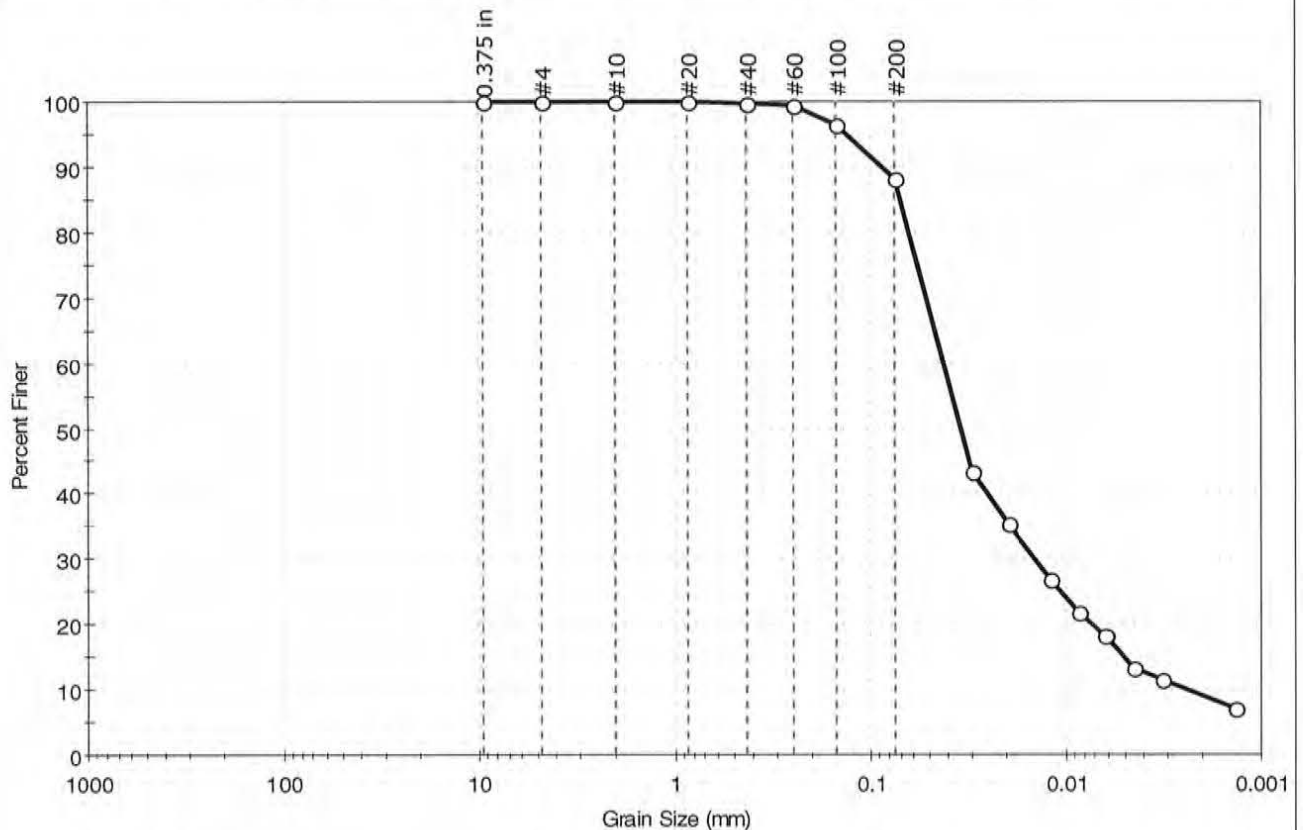
Method A, pH meter used





|                                             |                       |
|---------------------------------------------|-----------------------|
| Client: Moretrench American Corp.           | Project No: GTX-11659 |
| Project: Shepley Landfill                   |                       |
| Location: Devens, MA                        |                       |
| Boring ID: ---                              | Sample Type: bag      |
| Sample ID: CLAY / SILT (Graves)             | Test Date: 03/30/12   |
| Depth: ---                                  | Test Id: 233079       |
| Test Comment: ---                           | Tested By: jbr        |
| Sample Description: Moist, olive brown silt | Checked By: jdt       |
| Sample Comment: ---                         |                       |

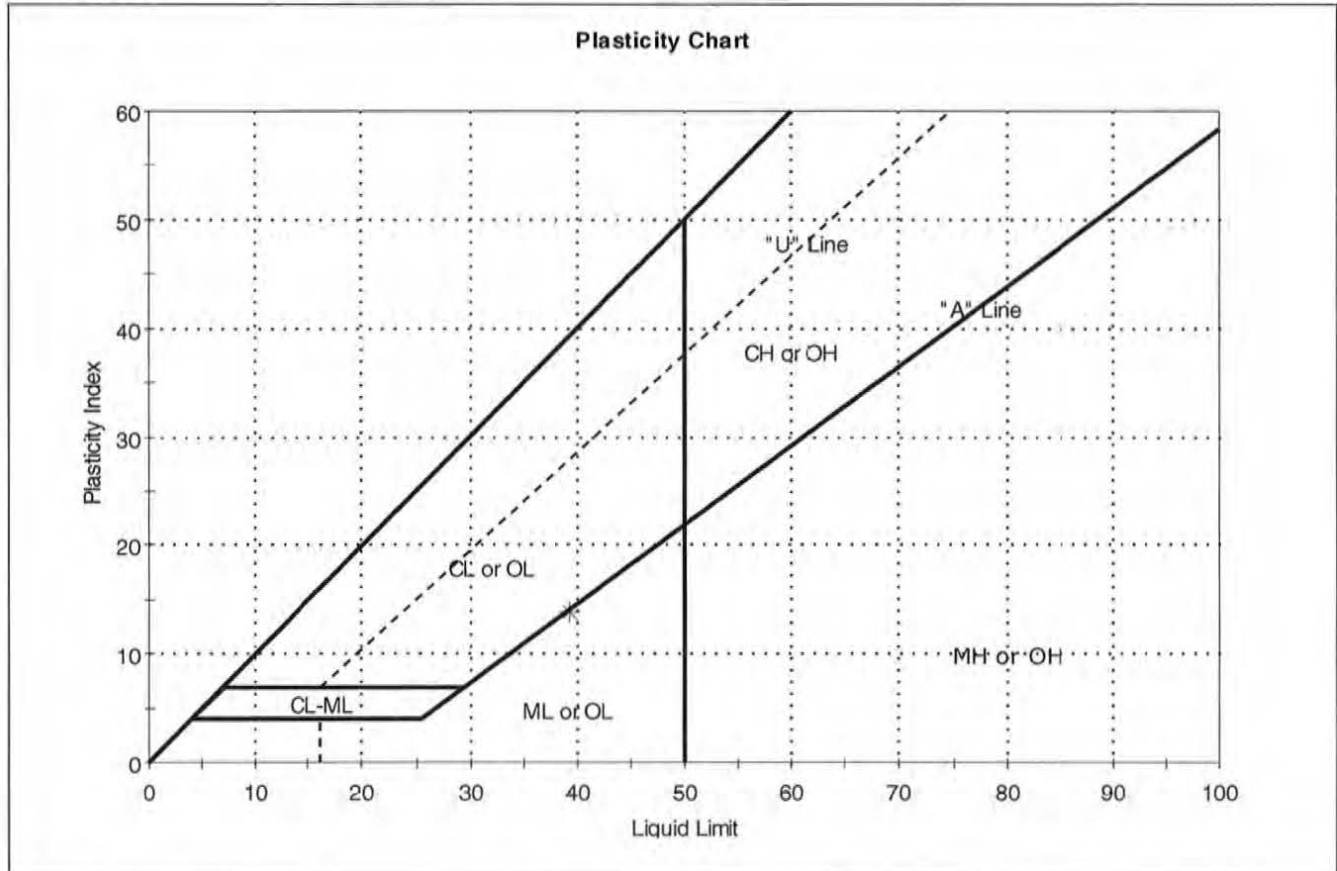
## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)





|                     |                           |              |           |
|---------------------|---------------------------|--------------|-----------|
| Client:             | Moretrench American Corp. |              |           |
| Project:            | Shepley Landfill          |              |           |
| Location:           | Devens, MA                | Project No:  | GTX-11659 |
| Boring ID:          | ---                       | Sample Type: | bag       |
| Sample ID:          | CLAY / SILT (Graves)      | Test Date:   | 03/30/12  |
| Depth :             | ---                       | Test Id:     | 233080    |
| Test Comment:       | ---                       |              |           |
| Sample Description: | Moist, olive brown silt   |              |           |
| Sample Comment:     | ---                       |              |           |

## Atterberg Limits - ASTM D 4318-05



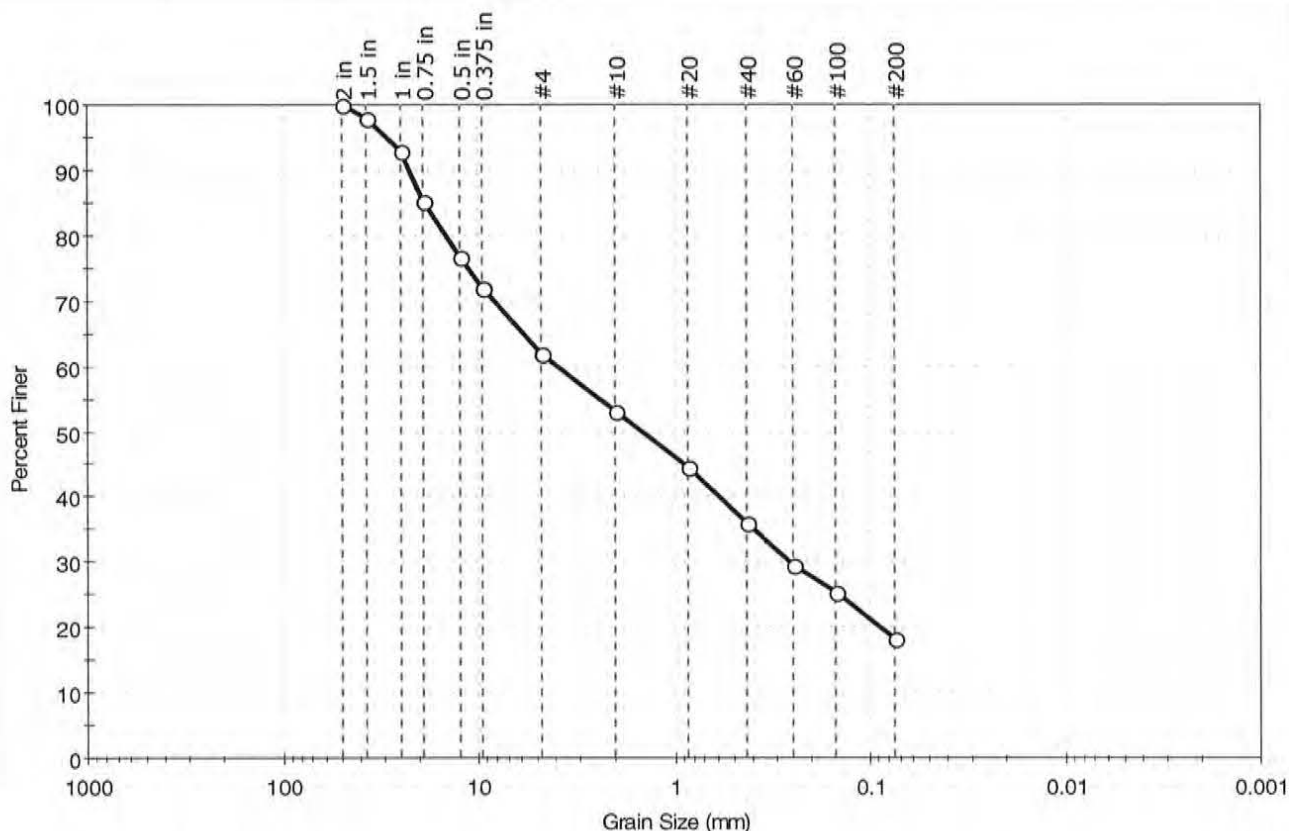
| Symbol | Sample ID            | Boring | Depth | Natural Moisture Content, % | Liquid Limit | Plastic Limit | Plasticity Index | Liquidity Index | Soil Classification |
|--------|----------------------|--------|-------|-----------------------------|--------------|---------------|------------------|-----------------|---------------------|
| *      | CLAY / SILT (Graves) | ---    | ---   | 26                          | 39           | 26            | 13               | 0               | silt (ML)           |

Sample Prepared using the WET method  
 0% Retained on #40 Sieve  
 Dry Strength: HIGH  
 Dilatancy: RAPID  
 Toughness: LOW



|                                                         |                       |
|---------------------------------------------------------|-----------------------|
| Client: Moretrench American Corp.                       | Project No: GTX-11659 |
| Project: Shepley Landfill                               |                       |
| Location: Devens, MA                                    |                       |
| Boring ID: ---                                          | Sample Type: bucket   |
| Sample ID: No. 4                                        | Test Date: 05/01/12   |
| Depth: ---                                              | Test Id: 235129       |
| Test Comment: ---                                       | Tested By: jbr        |
| Sample Description: Moist, brown silty sand with gravel | Checked By: jdt       |
| Sample Comment: ---                                     |                       |

## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
|----------|----------|--------|--------------------|
| —        | 38.1     | 43.5   | 18.4               |

| Sieve Name | Sieve Size, mm | Percent Finer | Spec. Percent | Complies |
|------------|----------------|---------------|---------------|----------|
| 2 in       | 50.00          | 100           |               |          |
| 1.5 in     | 37.50          | 98            |               |          |
| 1 in       | 25.00          | 93            |               |          |
| 0.75 in    | 19.00          | 85            |               |          |
| 0.5 in     | 12.50          | 77            |               |          |
| 0.375 in   | 9.50           | 72            |               |          |
| #4         | 4.75           | 62            |               |          |
| #10        | 2.00           | 53            |               |          |
| #20        | 0.85           | 44            |               |          |
| #40        | 0.42           | 36            |               |          |
| #60        | 0.25           | 29            |               |          |
| #100       | 0.15           | 25            |               |          |
| #200       | 0.075          | 18            |               |          |

### Coefficients

|                              |                             |
|------------------------------|-----------------------------|
| D <sub>85</sub> = 18.7488 mm | D <sub>30</sub> = 0.2617 mm |
| D <sub>60</sub> = 3.9170 mm  | D <sub>15</sub> = N/A       |
| D <sub>50</sub> = 1.4623 mm  | D <sub>10</sub> = N/A       |
| C <sub>u</sub> = N/A         | C <sub>c</sub> = N/A        |

### Classification

ASTM N/A

AASHTO Stone Fragments, Gravel and Sand (A-1-b (0))

### Sample/Test Description

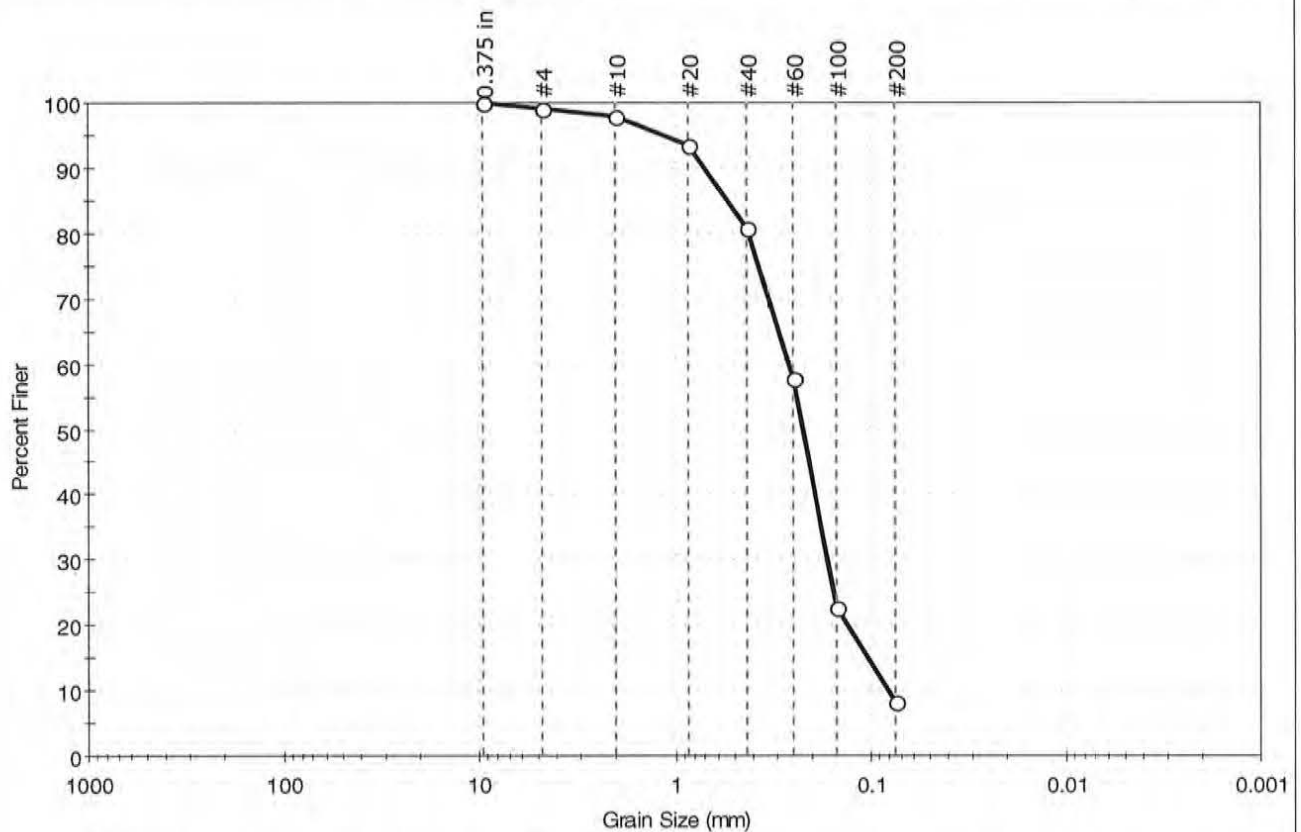
Sand/Gravel Particle Shape : ROUNDED

Sand/Gravel Hardness : HARD



|                                                 |                       |
|-------------------------------------------------|-----------------------|
| Client: Moretrench American Corp.               | Project No: GTX-11659 |
| Project: Shepley Landfill                       |                       |
| Location: Devens, MA                            |                       |
| Boring ID: ---                                  | Sample Type: bucket   |
| Sample ID: No. 5                                | Test Date: 05/02/12   |
| Depth: ---                                      | Test Id: 235131       |
| Test Comment: ---                               | Tested By: jbr        |
| Sample Description: Moist, brown sand with silt | Checked By: jdt       |
| Sample Comment: ---                             |                       |

## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
|----------|----------|--------|--------------------|
| —        | 0.8      | 90.9   | 8.3                |

| Sieve Name | Sieve Size, mm | Percent Finer | Spec. Percent | Complies |
|------------|----------------|---------------|---------------|----------|
| 0.375 in   | 9.50           | 100           |               |          |
| #4         | 4.75           | 99            |               |          |
| #10        | 2.00           | 98            |               |          |
| #20        | 0.85           | 93            |               |          |
| #40        | 0.42           | 81            |               |          |
| #60        | 0.25           | 58            |               |          |
| #100       | 0.15           | 23            |               |          |
| #200       | 0.075          | 8             |               |          |

### Coefficients

|                             |                             |
|-----------------------------|-----------------------------|
| D <sub>85</sub> = 0.5322 mm | D <sub>30</sub> = 0.1664 mm |
| D <sub>60</sub> = 0.2621 mm | D <sub>15</sub> = 0.1032 mm |
| D <sub>50</sub> = 0.2227 mm | D <sub>10</sub> = 0.0813 mm |
| C <sub>u</sub> = 3.224      | C <sub>c</sub> = 1.299      |

### Classification

**ASTM** Poorly graded sand with silt (SP-SM)

**AASHTO** Fine Sand (A-3 (0))

### Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---





|                     |                             |              |           |
|---------------------|-----------------------------|--------------|-----------|
| Client:             | Moretrench American Corp.   |              |           |
| Project:            | Shepley Landfill            |              |           |
| Location:           | Devens, MA                  | Project No:  | GTX-11659 |
| Boring ID:          | ---                         | Sample Type: | bucket    |
| Sample ID:          | No. 5                       | Test Date:   | 05/02/12  |
| Depth :             | ---                         | Test Id:     | 235133    |
| Test Comment:       | ---                         |              |           |
| Sample Description: | Moist, brown sand with silt |              |           |
| Sample Comment:     | ---                         |              |           |

## Atterberg Limits - ASTM D 4318-05

**Sample Determined to be non-plastic**

| Symbol | Sample ID | Boring | Depth | Natural Moisture Content, % | Liquid Limit | Plastic Limit | Plasticity Index | Liquidity Index | Soil Classification                  |
|--------|-----------|--------|-------|-----------------------------|--------------|---------------|------------------|-----------------|--------------------------------------|
| *      | No. 5     | ---    | ---   | 7                           | n/a          | n/a           | n/a              | n/a             | Poorly graded sand with silt (SP-SM) |

19% Retained on #40 Sieve

Dry Strength: NONE

Dilancy: RAPID

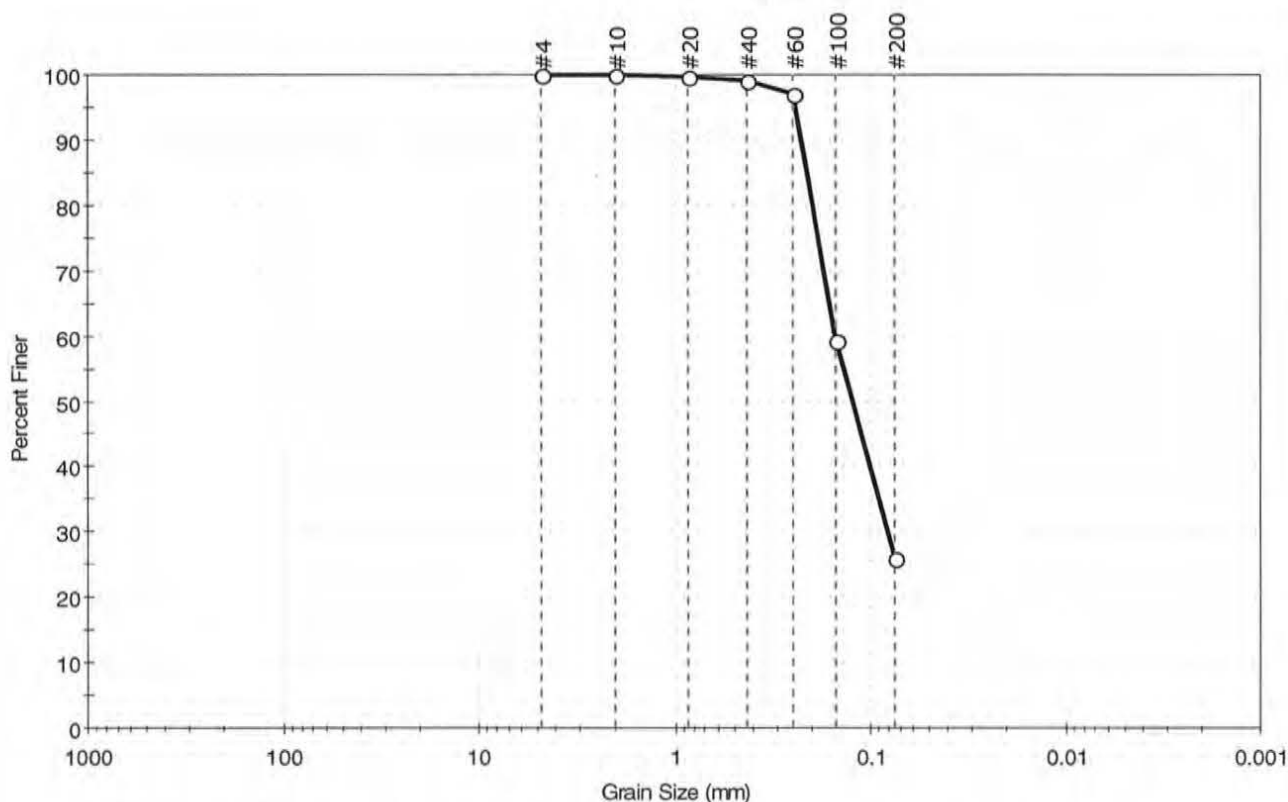
Toughness: n/a

The sample was determined to be Non-Plastic



|                                           |                       |
|-------------------------------------------|-----------------------|
| Client: Moretrench American Corp.         | Project No: GTX-11659 |
| Project: Shepley Landfill                 |                       |
| Location: Devens, MA                      |                       |
| Boring ID: ---                            | Sample Type: bucket   |
| Sample ID: No. 6                          | Test Date: 05/02/12   |
| Depth: ---                                | Test Id: 235130       |
| Test Comment: ---                         | Tested By: jbr        |
| Sample Description: Wet, brown silty sand | Checked By: jdt       |
| Sample Comment: ---                       |                       |

## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
|----------|----------|--------|--------------------|
| —        | 0.0      | 74.0   | 26.0               |

| Sieve Name | Sieve Size, mm | Percent Finer | Spec. Percent | Complies |
|------------|----------------|---------------|---------------|----------|
| #4         | 4.75           | 100           |               |          |
| #10        | 2.00           | 100           |               |          |
| #20        | 0.85           | 100           |               |          |
| #40        | 0.42           | 99            |               |          |
| #60        | 0.25           | 97            |               |          |
| #100       | 0.15           | 59            |               |          |
| #200       | 0.075          | 26            |               |          |

### Coefficients

|                             |                             |
|-----------------------------|-----------------------------|
| D <sub>85</sub> = 0.2124 mm | D <sub>30</sub> = 0.0815 mm |
| D <sub>60</sub> = 0.1514 mm | D <sub>15</sub> = N/A       |
| D <sub>50</sub> = 0.1236 mm | D <sub>10</sub> = N/A       |
| C <sub>u</sub> = N/A        | C <sub>c</sub> = N/A        |

### Classification

**ASTM** Silty sand (SM)

**AASHTO** Silty Gravel and Sand (A-2-4 (0))

### Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---



|                     |                           |              |           |
|---------------------|---------------------------|--------------|-----------|
| Client:             | Moretrench American Corp. |              |           |
| Project:            | Shepley Landfill          |              |           |
| Location:           | Devens, MA                | Project No:  | GTX-11659 |
| Boring ID:          | ---                       | Sample Type: | bucket    |
| Sample ID:          | No. 6                     | Test Date:   | 05/02/12  |
| Depth :             | ---                       | Test Id:     | 235132    |
| Test Comment:       | ---                       |              |           |
| Sample Description: | Wet, brown silty sand     |              |           |
| Sample Comment:     | ---                       |              |           |

## Atterberg Limits - ASTM D 4318-05

**Sample Determined to be non-plastic**

| Symbol | Sample ID | Boring | Depth | Natural Moisture Content, % | Liquid Limit | Plastic Limit | Plasticity Index | Liquidity Index | Soil Classification |
|--------|-----------|--------|-------|-----------------------------|--------------|---------------|------------------|-----------------|---------------------|
| *      | No. 6     | ---    | ---   | 38                          | n/a          | n/a           | n/a              | n/a             | Silty sand (SM)     |

1% Retained on #40 Sieve

Dry Strength: NONE

Dilatancy: RAPID

Toughness: n/a

The sample was determined to be Non-Plastic



|                   |                           |
|-------------------|---------------------------|
| Client:           | Moretrench American Corp. |
| Project Name:     | Shepley Landfill          |
| Project Location: | Devens, MA                |
| GTX #:            | 11659                     |
| Test Date:        | 05/17/12                  |
| Tested By:        | cwd                       |
| Checked By:       | jdt                       |

## Summary of Slurry Testing

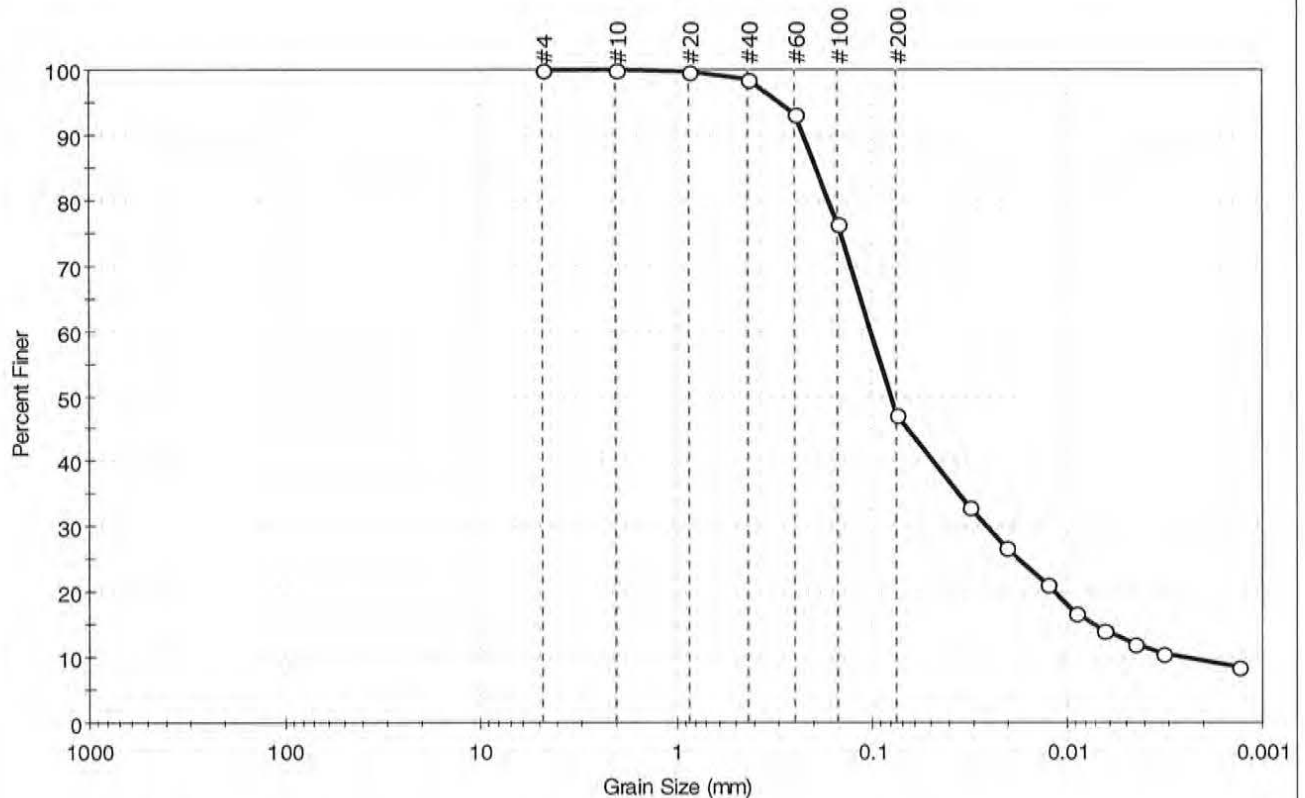
| Slurry ID | Description                                          | pH  | Mud Balance<br>Density,<br>pcf | Marsh Funnel<br>Viscosity, sec | Filtrate Loss,<br>cm <sup>3</sup> |
|-----------|------------------------------------------------------|-----|--------------------------------|--------------------------------|-----------------------------------|
| 6%        | 6% Hydrogel Bentonite with Sample<br>3 Hydrant Water | 7.5 | 64.3                           | 61                             | 4.3                               |

Notes: Bentonite powder added to water on a weight basis



|                     |                               |              |           |
|---------------------|-------------------------------|--------------|-----------|
| Client:             | Moretrench American Corp.     | Project No:  | GTX-11659 |
| Project:            | Shepley Landfill              | Tested By:   | jbr       |
| Location:           | Devens, MA                    | Checked By:  | jdt       |
| Boring ID:          | ---                           | Sample Type: | ---       |
| Sample ID:          | MIX 1                         | Test Date:   | 05/18/12  |
| Depth:              | ---                           | Test Id:     | 236543    |
| Test Comment:       | ---                           |              |           |
| Sample Description: | Wet, olive silty, clayey sand |              |           |
| Sample Comment:     | Soil-Bentonite mix            |              |           |

## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
|----------|----------|--------|--------------------|
| —        | 0.0      | 52.9   | 47.1               |

| Sieve Name | Sieve Size, mm     | Percent Finer | Spec. Percent | Complies |
|------------|--------------------|---------------|---------------|----------|
| #4         | 4.75               | 100           |               |          |
| #10        | 2.00               | 100           |               |          |
| #20        | 0.85               | 100           |               |          |
| #40        | 0.425              | 98            |               |          |
| #60        | 0.25               | 93            |               |          |
| #100       | 0.15               | 76            |               |          |
| #200       | 0.075              | 47            |               |          |
| ---        | Particle Size (mm) | Percent Finer | Spec. Percent | Complies |
| ---        | 0.0318             | 33            |               |          |
| ---        | 0.0208             | 27            |               |          |
| ---        | 0.0125             | 21            |               |          |
| ---        | 0.0085             | 17            |               |          |
| ---        | 0.0063             | 14            |               |          |
| ---        | 0.0045             | 12            |               |          |
| ---        | 0.0032             | 11            |               |          |
| ---        | 0.0013             | 8             |               |          |

### Coefficients

|                             |                             |
|-----------------------------|-----------------------------|
| D <sub>85</sub> = 0.1943 mm | D <sub>30</sub> = 0.0259 mm |
| D <sub>60</sub> = 0.1017 mm | D <sub>15</sub> = 0.0071 mm |
| D <sub>50</sub> = 0.0803 mm | D <sub>10</sub> = 0.0026 mm |
| C <sub>u</sub> = N/A        | C <sub>c</sub> = N/A        |

### Classification

**ASTM** Silty, clayey sand (SC-SM)

**AASHTO** Silty Soils (A-4 (0))

### Sample/Test Description

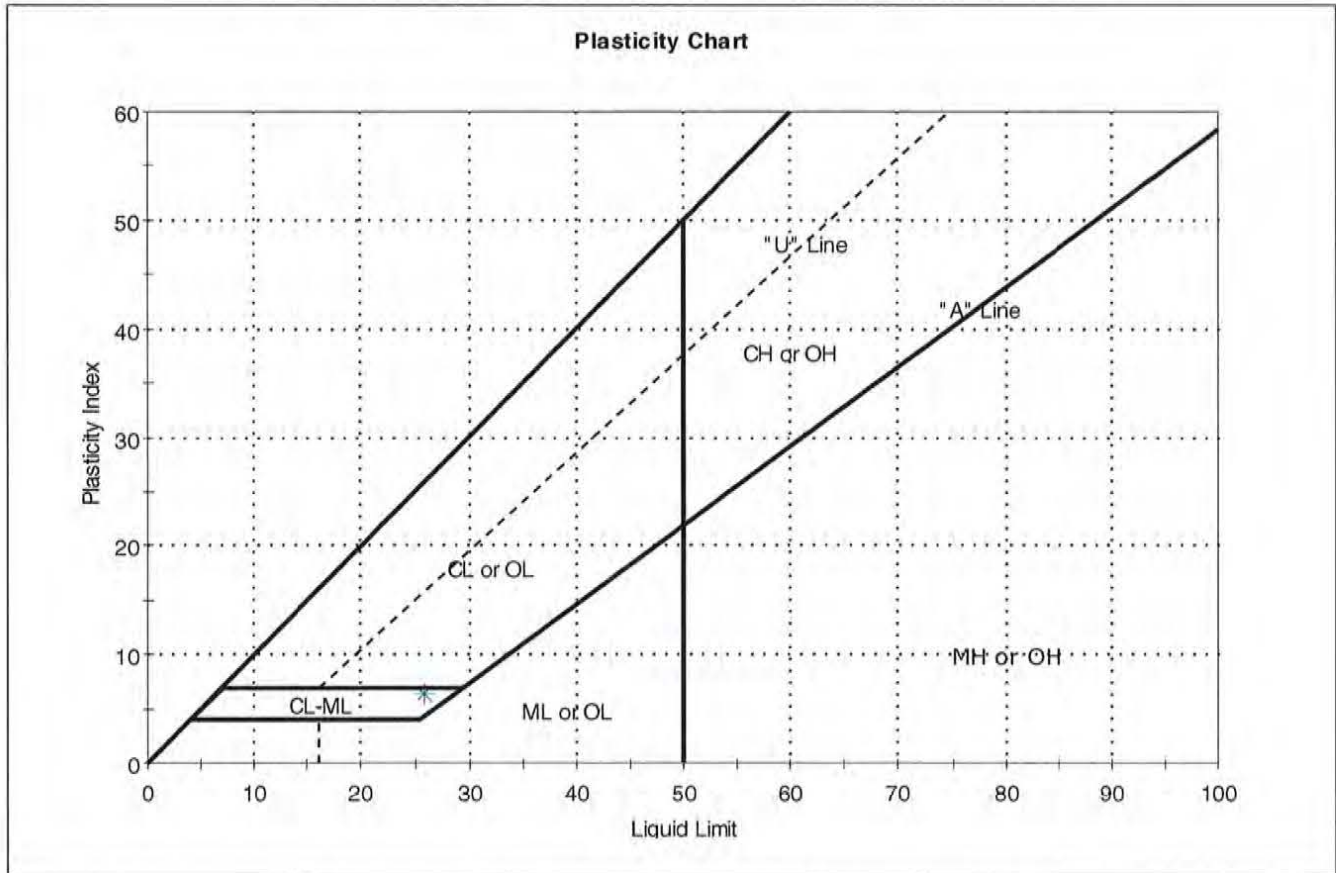
Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---



|                     |                               |              |           |
|---------------------|-------------------------------|--------------|-----------|
| Client:             | Moretrench American Corp.     | Project No:  | GTX-11659 |
| Project:            | Shepley Landfill              | Tested By:   | cam       |
| Location:           | Devens, MA                    | Checked By:  | jdt       |
| Boring ID:          | ---                           | Sample Type: | ---       |
| Sample ID:          | MIX 1                         | Test Date:   | 05/25/12  |
| Depth :             | ---                           | Test Id:     | 236545    |
| Test Comment:       | ---                           |              |           |
| Sample Description: | Wet, olive silty, clayey sand |              |           |
| Sample Comment:     | Soil-Bentonite mix            |              |           |

## Atterberg Limits - ASTM D 4318-05



| Symbol | Sample ID | Boring | Depth | Natural Moisture Content, % | Liquid Limit | Plastic Limit | Plasticity Index | Liquidity Index | Soil Classification        |
|--------|-----------|--------|-------|-----------------------------|--------------|---------------|------------------|-----------------|----------------------------|
| *      | MIX 1     | ---    | ---   | 36                          | 26           | 19            | 7                | 2               | Silty, clayey sand (SC-SM) |

Sample Prepared using the WET method  
 2% Retained on #40 Sieve  
 Dry Strength: HIGH  
 Dilatancy: SLOW  
 Toughness: LOW



|                     |                                                    |             |     |
|---------------------|----------------------------------------------------|-------------|-----|
| Client:             | Moretrench American Corp.                          |             |     |
| Project Name:       | Shepley Landfill                                   |             |     |
| Project Location:   | Devens, MA                                         |             |     |
| GTX #:              | 11659                                              |             |     |
| Start Date:         | 5/18/2012                                          | Tested By:  | ema |
| End Date:           | 5/30/2012                                          | Checked By: | jdt |
| Boring #:           | ---                                                |             |     |
| Sample #:           | MIX 1                                              |             |     |
| Depth:              | ---                                                |             |     |
| Visual Description: | Wet, olive silty, clayey sand (soil-bentonite mix) |             |     |

## Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter by ASTM D 5084 Constant Volume

|                     |                                                                                                                        |                 |                          |
|---------------------|------------------------------------------------------------------------------------------------------------------------|-----------------|--------------------------|
| Sample Type:        | Remolded                                                                                                               | Permeant Fluid: | De-aired Distilled water |
| Orientation:        | Vertical                                                                                                               | Cell #:         | 5/12/15                  |
| Sample Preparation: | Test specimen compacted with moderate effort at the mix prepared moisture content . Trimmings moisture content = 35.3% |                 |                          |

| Parameter               | Initial | Final |
|-------------------------|---------|-------|
| Height, in              | 2.71    | 2.14  |
| Diameter, in            | 2.85    | 2.70  |
| Area, in <sup>2</sup>   | 6.38    | 5.73  |
| Volume, in <sup>3</sup> | 17.3    | 12.3  |
| Mass, g                 | 447     | 404   |
| Bulk Density, pcf       | 98.3    | 125   |
| Moisture Content, %     | 38.5    | 25.2  |
| Dry Density, pcf        | 71.0    | 100   |
| Degree of Saturation, % | ---     | 97    |

### B COEFFICIENT DETERMINATION

|                       |      |                          |      |
|-----------------------|------|--------------------------|------|
| Cell Pressure, psi:   | 95.2 | Pressure Increment, psi: | 5.02 |
| Sample Pressure, psi: | 90.3 | B Coefficient:           | 0.97 |

### FLOW DATA

| Date  | Trial # | Pressure, psi |        | Manometer Readings |                |                                | Elapsed Time, sec | Gradient | Permeability K, cm/sec | Temp, °C | R <sub>t</sub> | Permeability K @ 20 °C, cm/sec |
|-------|---------|---------------|--------|--------------------|----------------|--------------------------------|-------------------|----------|------------------------|----------|----------------|--------------------------------|
|       |         | Cell          | Sample | Z <sub>1</sub>     | Z <sub>2</sub> | Z <sub>1</sub> -Z <sub>2</sub> |                   |          |                        |          |                |                                |
| 05/29 | 2       | 90            | 85     | 10.0               | 9.5            | 0.5                            | 77                | 23.2     | 2.4E-07                | 20       | 1.000          | 2.4E-07                        |
| 05/29 | 3       | 90            | 85     | 10.0               | 9.5            | 0.5                            | 85                | 23.2     | 2.2E-07                | 20       | 1.000          | 2.2E-07                        |
| 05/29 | 4       | 90            | 85     | 10.0               | 9.5            | 0.5                            | 89                | 23.2     | 2.1E-07                | 20       | 1.000          | 2.1E-07                        |
| 05/29 | 5       | 90            | 85     | 10.0               | 9.5            | 0.5                            | 91                | 23.2     | 2.1E-07                | 20       | 1.000          | 2.1E-07                        |

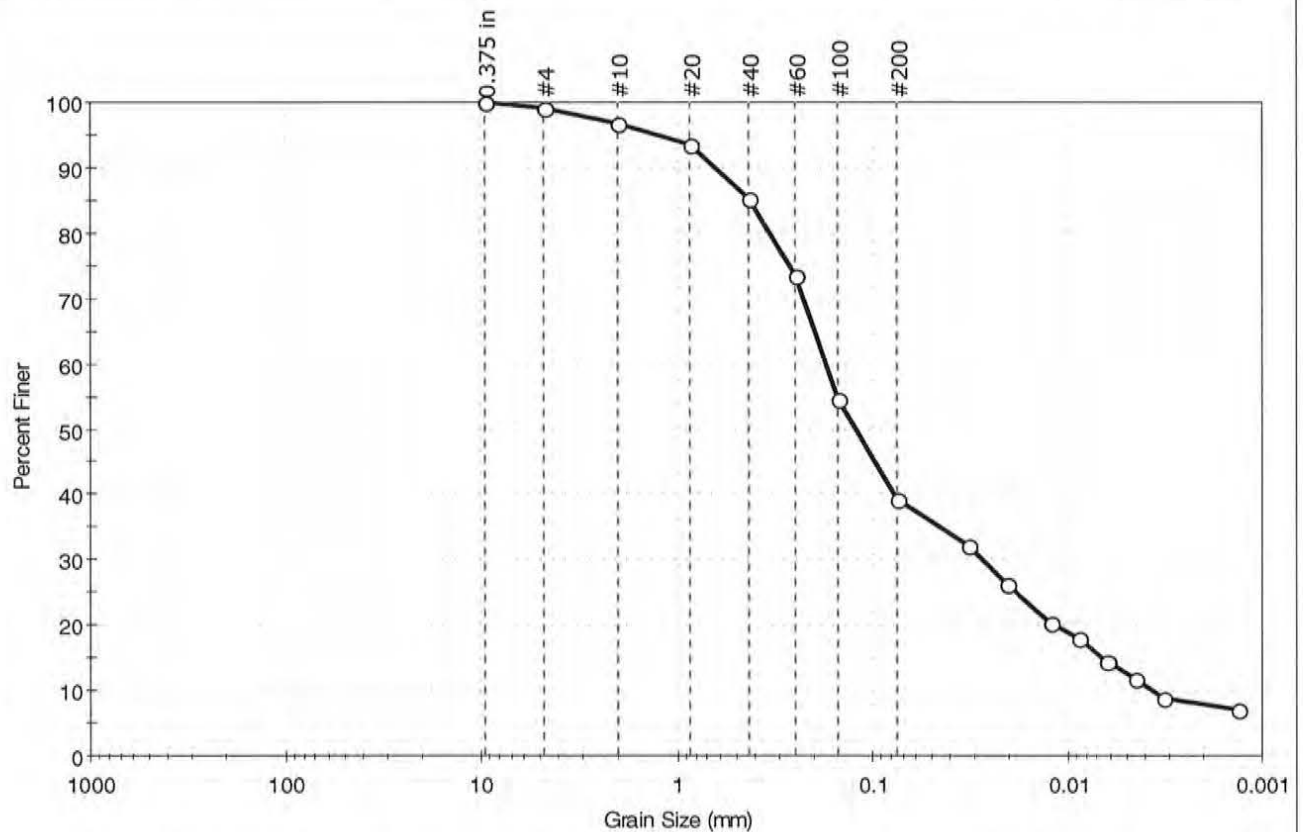
**PERMEABILITY AT 20° C:  $2.2 \times 10^{-7}$  cm/sec (@ 5 psi effective stress)**





|                                            |                       |
|--------------------------------------------|-----------------------|
| Client: Moretrench American Corp.          | Project No: GTX-11659 |
| Project: Shepley Landfill                  | Tested By: jbr        |
| Location: Devens, MA                       | Checked By: jdt       |
| Boring ID: ---                             | Sample Type: ---      |
| Sample ID: MIX 2                           | Test Date: 05/18/12   |
| Depth: ---                                 | Test Id: 236544       |
| Test Comment: ---                          |                       |
| Sample Description: Wet, olive clayey sand |                       |
| Sample Comment: Soil-Bentonite mix         |                       |

## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
|----------|----------|--------|--------------------|
| ---      | 0.9      | 59.9   | 39.2               |

| Sieve Name | Sieve Size, mm     | Percent Finer | Spec. Percent | Complies |
|------------|--------------------|---------------|---------------|----------|
| 0.375 in   | 9.50               | 100           |               |          |
| #4         | 4.75               | 99            |               |          |
| #10        | 2.00               | 97            |               |          |
| #20        | 0.85               | 93            |               |          |
| #40        | 0.42               | 85            |               |          |
| #60        | 0.25               | 74            |               |          |
| #100       | 0.15               | 55            |               |          |
| #200       | 0.075              | 39            |               |          |
| ---        | Particle Size (mm) | Percent Finer | Spec. Percent | Complies |
| ---        | 0.0324             | 32            |               |          |
| ---        | 0.0207             | 26            |               |          |
| ---        | 0.0123             | 20            |               |          |
| ---        | 0.0088             | 18            |               |          |
| ---        | 0.0063             | 14            |               |          |
| ---        | 0.0045             | 12            |               |          |
| ---        | 0.0032             | 9             |               |          |
| ---        | 0.0013             | 7             |               |          |

### Coefficients

|                             |                             |
|-----------------------------|-----------------------------|
| D <sub>85</sub> = 0.4195 mm | D <sub>30</sub> = 0.0274 mm |
| D <sub>60</sub> = 0.1739 mm | D <sub>15</sub> = 0.0067 mm |
| D <sub>50</sub> = 0.1224 mm | D <sub>10</sub> = 0.0036 mm |
| C <sub>u</sub> = N/A        | C <sub>c</sub> = N/A        |

### Classification

ASTM Clayey sand (SC)

AASHTO Silty Soils (A-4 (0))

### Sample/Test Description

Sand/Gravel Particle Shape : ROUNDED

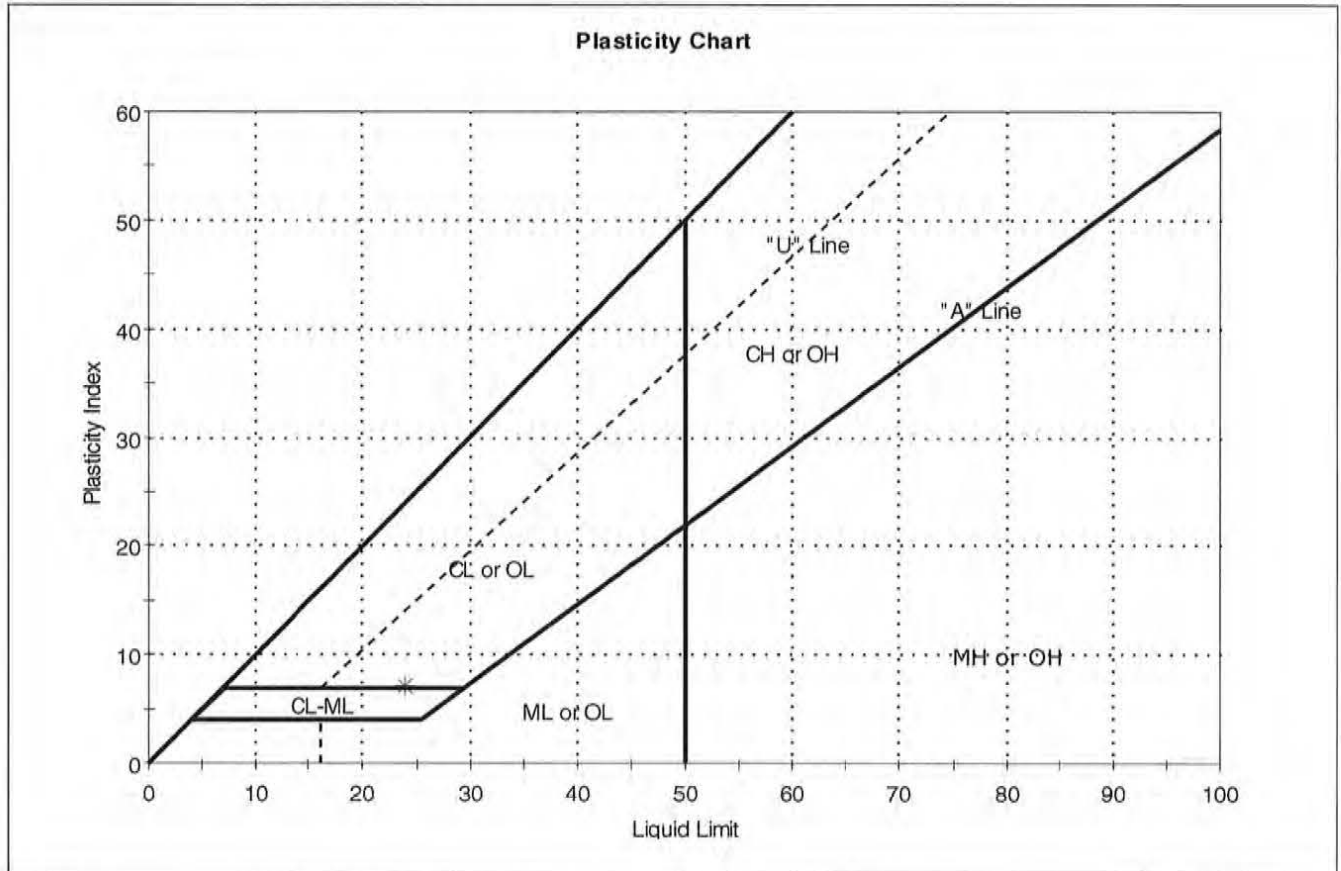
Sand/Gravel Hardness : HARD





|                     |                           |              |           |
|---------------------|---------------------------|--------------|-----------|
| Client:             | Moretrench American Corp. | Project No:  | GTX-11659 |
| Project:            | Shepley Landfill          | Tested By:   | cam       |
| Location:           | Devens, MA                | Checked By:  | jdt       |
| Boring ID:          | ---                       | Sample Type: | ---       |
| Sample ID:          | MIX 2                     | Test Date:   | 05/25/12  |
| Depth :             | ---                       | Test Id:     | 236546    |
| Test Comment:       | ---                       |              |           |
| Sample Description: | Wet, olive clayey sand    |              |           |
| Sample Comment:     | Soil-Bentonite mix        |              |           |

## Atterberg Limits - ASTM D 4318-05



| Symbol | Sample ID | Boring | Depth | Natural Moisture Content, % | Liquid Limit | Plastic Limit | Plasticity Index | Liquidity Index | Soil Classification |
|--------|-----------|--------|-------|-----------------------------|--------------|---------------|------------------|-----------------|---------------------|
| *      | MIX 2     | ---    | ---   | 33                          | 24           | 17            | 7                | 2               | Clayey sand (SC)    |

Sample Prepared using the WET method  
 15% Retained on #40 Sieve  
 Dry Strength: VERY HIGH  
 Dilatancy: SLOW  
 Toughness: LOW



|                     |                                             |             |     |
|---------------------|---------------------------------------------|-------------|-----|
| Client:             | Moretrench American Corp.                   |             |     |
| Project Name:       | Shepley Landfill                            |             |     |
| Project Location:   | Devens, MA                                  |             |     |
| GTX #:              | 11659                                       |             |     |
| Start Date:         | 5/18/2012                                   | Tested By:  | ema |
| End Date:           | 5/30/2012                                   | Checked By: | jdt |
| Boring #:           | ---                                         |             |     |
| Sample #:           | MIX 2                                       |             |     |
| Depth:              | ---                                         |             |     |
| Visual Description: | Wet, olive clayey sand (soil-bentonite mix) |             |     |

## Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter by ASTM D 5084 Constant Volume

|                     |                                                                                                         |                 |                          |
|---------------------|---------------------------------------------------------------------------------------------------------|-----------------|--------------------------|
| Sample Type:        | Remolded                                                                                                | Permeant Fluid: | De-aired Distilled water |
| Orientation:        | Vertical                                                                                                | Cell #:         | 12/3/2                   |
| Sample Preparation: | Target Compaction: Moderate effort at as prepared Moisture Content . Trimmings moisture content = 32.0% |                 |                          |

| Parameter               | Initial | Final |
|-------------------------|---------|-------|
| Height, in              | 2.58    | 2.10  |
| Diameter, in            | 2.85    | 2.76  |
| Area, in <sup>2</sup>   | 6.38    | 5.98  |
| Volume, in <sup>3</sup> | 16.5    | 12.6  |
| Mass, g                 | 459     | 411   |
| Bulk Density, pcf       | 106     | 124   |
| Moisture Content, %     | 32.8    | 18.9  |
| Dry Density, pcf        | 79.8    | 105   |
| Degree of Saturation, % | ---     | 83    |

### B COEFFICIENT DETERMINATION

|                       |       |                          |       |
|-----------------------|-------|--------------------------|-------|
| Cell Pressure, psi:   | 94.94 | Pressure Increment, psi: | 4.96  |
| Sample Pressure, psi: | 90.2  | B Coefficient:           | 0.959 |

### FLOW DATA

| Date | Trial # | Pressure, psi |        | Manometer Readings |                |                                | Elapsed Time, sec | Gradient | Permeability K <sub>r</sub> cm/sec | Temp, °C | R <sub>t</sub> | Permeability K @ 20 °C, cm/sec |
|------|---------|---------------|--------|--------------------|----------------|--------------------------------|-------------------|----------|------------------------------------|----------|----------------|--------------------------------|
|      |         | Cell          | Sample | Z <sub>1</sub>     | Z <sub>2</sub> | Z <sub>1</sub> -Z <sub>2</sub> |                   |          |                                    |          |                |                                |
| 5/21 | 1       | 90            | 85     | 10.0               | 9.8            | 0.2                            | 60                | 23.6     | 1.2E-07                            | 20       | 1.000          | 1.2E-07                        |
| 5/21 | 2       | 90            | 85     | 10.0               | 9.8            | 0.2                            | 62                | 23.6     | 1.1E-07                            | 20       | 1.000          | 1.1E-07                        |
| 5/21 | 3       | 90            | 85     | 10.0               | 9.8            | 0.2                            | 65                | 23.6     | 1.1E-07                            | 20       | 1.000          | 1.1E-07                        |
| 5/21 | 4       | 90            | 85     | 10.0               | 9.8            | 0.2                            | 65                | 23.6     | 1.1E-07                            | 20       | 1.000          | 1.1E-07                        |

**PERMEABILITY AT 20° C:  $1.1 \times 10^{-7}$  cm/sec (@ 5 psi effective stress)**



|                     |                                             |             |     |
|---------------------|---------------------------------------------|-------------|-----|
| Client:             | Moretrench American Corp.                   |             |     |
| Project Name:       | Shepley Landfill                            |             |     |
| Project Location:   | Devens, MA                                  |             |     |
| GTX #:              | 11659                                       |             |     |
| Start Date:         | 5/18/2012                                   | Tested By:  | ema |
| End Date:           | 5/30/2012                                   | Checked By: | jdt |
| Boring #:           | ---                                         |             |     |
| Sample #:           | MIX 2 (additional 0.5% bentonite added)     |             |     |
| Depth:              | ---                                         |             |     |
| Visual Description: | Wet, olive clayey sand (soil-bentonite mix) |             |     |

## Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter by ASTM D 5084 Constant Volume

|                     |                                                                                                                        |                 |                          |
|---------------------|------------------------------------------------------------------------------------------------------------------------|-----------------|--------------------------|
| Sample Type:        | Remolded                                                                                                               | Permeant Fluid: | De-aired Distilled water |
| Orientation:        | Vertical                                                                                                               | Cell #:         | 12/3/2                   |
| Sample Preparation: | Test specimen compacted with moderate effort at the mix prepared moisture content . Trimmings moisture content = 32.0% |                 |                          |

| Parameter               | Initial | Final |
|-------------------------|---------|-------|
| Height, in              | 2.08    | 1.95  |
| Diameter, in            | 2.85    | 2.73  |
| Area, in <sup>2</sup>   | 6.38    | 5.85  |
| Volume, in <sup>3</sup> | 13.3    | 11.4  |
| Mass, g                 | 410     | 402   |
| Bulk Density, pcf       | 118     | 134   |
| Moisture Content, %     | 21.3    | 18.9  |
| Dry Density, pcf        | 96.9    | 113   |
| Degree of Saturation, % | ---     | 99    |

### B COEFFICIENT DETERMINATION

|                       |      |                          |      |
|-----------------------|------|--------------------------|------|
| Cell Pressure, psi:   | 95.2 | Pressure Increment, psi: | 5.05 |
| Sample Pressure, psi: | 90.0 | B Coefficient:           | 0.95 |

### FLOW DATA

| Date | Trial # | Pressure, psi |        | Manometer Readings |                |                                | Elapsed Time, sec | Gradient | Permeability K <sub>r</sub> cm/sec | Temp, °C | R <sub>t</sub> | Permeability K @ 20 °C, cm/sec |
|------|---------|---------------|--------|--------------------|----------------|--------------------------------|-------------------|----------|------------------------------------|----------|----------------|--------------------------------|
|      |         | Cell          | Sample | Z <sub>1</sub>     | Z <sub>2</sub> | Z <sub>1</sub> -Z <sub>2</sub> |                   |          |                                    |          |                |                                |
| 5/29 | 1       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 82                | 25.4     | 4.0E-08                            | 20       | 1.000          | 4.0E-08                        |
| 5/29 | 2       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 84                | 25.4     | 3.9E-08                            | 20       | 1.000          | 3.9E-08                        |
| 5/29 | 3       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 86                | 25.4     | 3.8E-08                            | 20       | 1.000          | 3.8E-08                        |
| 5/29 | 4       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 88                | 25.4     | 3.7E-08                            | 20       | 1.000          | 3.7E-08                        |

**PERMEABILITY AT 20° C:  $3.9 \times 10^{-8}$  cm/sec (@ 5 psi effective stress)**





|                     |                                         |             |     |
|---------------------|-----------------------------------------|-------------|-----|
| Client:             | Moretrench American Corp.               |             |     |
| Project Name:       | Shepley Landfill                        |             |     |
| Project Location:   | Devens, MA                              |             |     |
| GTX #:              | 11659                                   |             |     |
| Start Date:         | 6/11/2012                               | Tested By:  | ema |
| End Date:           | 7/19/2012                               | Checked By: | jdt |
| Boring #:           | ---                                     |             |     |
| Sample #:           | MIX 2 (additional 0.5% bentonite added) |             |     |
| Depth:              | ---                                     |             |     |
| Visual Description: | Moist, brown soil/ bentonite mix        |             |     |

## Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter by ASTM D 5084 Constant Gradient

Sample Type:

remolded

Permeant Fluid:

Leachate (provided by client)

Orientation:

Vertical

Cell #:

3/9

Sample Preparation:

Test specimen compacted with moderate effort at the as-prepared mix moisture content. Trimmings moisture content = 31.6%.

| Parameter               | Initial | Final |
|-------------------------|---------|-------|
| Height, in              | 2.47    | 2.43  |
| Diameter, in            | 2.85    | 2.71  |
| Area, in <sup>2</sup>   | 6.38    | 5.77  |
| Volume, in <sup>3</sup> | 15.8    | 14.0  |
| Mass, g                 | 542     | 483   |
| Bulk Density, pcf       | 131     | 131   |
| Moisture Content, %     | 37.8    | 22.8  |
| Dry Density, pcf        | 94.9    | 107   |
| Degree of Saturation, % | ---     | 99    |

### B COEFFICIENT DETERMINATION

|                       |      |                          |      |
|-----------------------|------|--------------------------|------|
| Cell Pressure, psi:   | 95.1 | Pressure Increment, psi: | 5.00 |
| Sample Pressure, psi: | 90.1 | B Coefficient:           | 0.99 |

### FLOW DATA

| Date | Time, sec | Pressure, psi |       |        | Gradient | Flow Volume, cc |       |       |       | Temp, °C | R <sub>t</sub> | Permeability K @ 20 °C, cm/sec |
|------|-----------|---------------|-------|--------|----------|-----------------|-------|-------|-------|----------|----------------|--------------------------------|
|      |           | Cell          | Inlet | Outlet |          | In              | Out   | Δ In  | Δ Out |          |                |                                |
| 7/10 | ---       | 90.0          | 86.0  | 84.0   | 22.8     | 7.00            | 11.00 | ---   | ---   | ---      | ---            | ---                            |
| 7/11 | 86700     | 90.0          | 86.0  | 84.0   | 22.8     | 13.00           | 5.00  | 6.00  | 6.00  | 20       | 1.000          | 8.2E-08                        |
| 7/11 | ----      | 90.0          | 86.0  | 84.0   | 22.8     | 7.00            | 11.00 | ---   | ---   | ---      | ---            | ---                            |
| 7/12 | 83400     | 90.0          | 86.0  | 84.0   | 22.8     | 13.10           | 5.00  | 6.10  | 6.00  | 20       | 1.000          | 8.6E-08                        |
| 7/12 | ----      | 90.0          | 86.0  | 84.0   | 22.8     | 6.20            | 11.90 | ---   | ---   | ---      | ---            | ---                            |
| 7/13 | 79800     | 90.0          | 86.0  | 84.0   | 22.8     | 11.90           | 6.20  | 5.70  | 5.70  | 20       | 1.000          | 8.4E-08                        |
| 7/13 | ----      | 90.0          | 86.0  | 84.0   | 22.8     | 3.30            | 20.20 | ---   | ---   | ---      | ---            | ---                            |
| 7/16 | 240480    | 90.0          | 86.0  | 84.0   | 22.8     | 21.20           | 2.60  | 17.90 | 17.60 | 20       | 1.000          | 8.7E-08                        |

**PERMEABILITY AT 20° C:  $8.5 \times 10^{-8}$  cm/sec (@ 5 psi effective stress)**

## WARRANTY and LIABILITY

GeoTesting Express (GTX) warrants that all tests it performs are run in general accordance with the specified test procedures and accepted industry practice. GTX will correct or repeat any test that does not comply with this warranty. GTX has no specific knowledge as to conditioning, origin, sampling procedure or intended use of the material.

GTX may report engineering parameters that require us to interpret the test data. Such parameters are determined using accepted engineering procedures. However, GTX does not warrant that these parameters accurately reflect the true engineering properties of the *in situ* material. Responsibility for interpretation and use of the test data and these parameters for engineering and/or construction purposes rests solely with the user and not with GTX or any of its employees.

GTX's liability will be limited to correcting or repeating a test which fails our warranty. GTX's liability for damages to the Purchaser of testing services for any cause whatsoever shall be limited to the amount GTX received for the testing services. GTX will not be liable for any damages, or for any lost benefits or other consequential damages resulting from the use of these test results, even if GTX has been advised of the possibility of such damages. GTX will not be responsible for any liability of the Purchaser to any third party.

## Commonly Used Symbols

|            |                                                                 |                       |                                                 |
|------------|-----------------------------------------------------------------|-----------------------|-------------------------------------------------|
| A          | pore pressure parameter for $\Delta\sigma_1 - \Delta\sigma_3$   | T                     | temperature                                     |
| B          | pore pressure parameter for $\Delta\sigma_3$                    | t                     | time                                            |
| CIU        | isotropically consolidated undrained triaxial shear test        | U, UC                 | unconfined compression test                     |
| CR         | compression ratio for one dimensional consolidation             | UU, Q                 | unconsolidated undrained triaxial test          |
| $C_c$      | coefficient of curvature, $(D_{30})^2 / (D_{10} \times D_{60})$ | $u_a$                 | pore gas pressure                               |
| $C_u$      | coefficient of uniformity, $D_{60}/D_{10}$                      | $u_e$                 | excess pore water pressure                      |
| $C_c$      | compression index for one dimensional consolidation             | $u, u_w$              | pore water pressure                             |
| $C_\alpha$ | coefficient of secondary compression                            | V                     | total volume                                    |
| $c_v$      | coefficient of consolidation                                    | $V_g$                 | volume of gas                                   |
| c          | cohesion intercept for total stresses                           | $V_s$                 | volume of solids                                |
| $c'$       | cohesion intercept for effective stresses                       | $V_v$                 | volume of voids                                 |
| D          | diameter of specimen                                            | $V_w$                 | volume of water                                 |
| $D_{10}$   | diameter at which 10% of soil is finer                          | $V_o$                 | initial volume                                  |
| $D_{15}$   | diameter at which 15% of soil is finer                          | v                     | velocity                                        |
| $D_{30}$   | diameter at which 30% of soil is finer                          | W                     | total weight                                    |
| $D_{50}$   | diameter at which 50% of soil is finer                          | $W_s$                 | weight of solids                                |
| $D_{60}$   | diameter at which 60% of soil is finer                          | $W_w$                 | weight of water                                 |
| $D_{85}$   | diameter at which 85% of soil is finer                          | w                     | water content                                   |
| $d_{50}$   | displacement for 50% consolidation                              | $w_c$                 | water content at consolidation                  |
| $d_{90}$   | displacement for 90% consolidation                              | $w_f$                 | final water content                             |
| $d_{100}$  | displacement for 100% consolidation                             | $w_l$                 | liquid limit                                    |
| E          | Young's modulus                                                 | $w_n$                 | natural water content                           |
| e          | void ratio                                                      | $w_p$                 | plastic limit                                   |
| $e_c$      | void ratio after consolidation                                  | $w_s$                 | shrinkage limit                                 |
| $e_o$      | initial void ratio                                              | $w_o, w_l$            | initial water content                           |
| G          | shear modulus                                                   | $\alpha$              | slope of $q_f$ versus $p_f$                     |
| $G_s$      | specific gravity of soil particles                              | $\alpha'$             | slope of $q_f$ versus $p_f'$                    |
| H          | height of specimen                                              | $\gamma_t$            | total unit weight                               |
| PI         | plasticity index                                                | $\gamma_d$            | dry unit weight                                 |
| i          | gradient                                                        | $\gamma_s$            | unit weight of solids                           |
| $K_o$      | lateral stress ratio for one dimensional strain                 | $\gamma_w$            | unit weight of water                            |
| k          | permeability                                                    | E                     | strain                                          |
| LI         | Liquidity Index                                                 | $E_{vol}$             | volume strain                                   |
| $m_v$      | coefficient of volume change                                    | $e_h, E_v$            | horizontal strain, vertical strain              |
| n          | porosity                                                        | $\mu$                 | Poisson's ratio, also viscosity                 |
| PI         | plasticity index                                                | $\sigma$              | normal stress                                   |
| $P_c$      | preconsolidation pressure                                       | $\sigma'$             | effective normal stress                         |
| p          | $(\sigma_1 + \sigma_3) / 2, (\sigma_v + \sigma_h) / 2$          | $\sigma_c, \sigma_c'$ | consolidation stress in isotropic stress system |
| $p'$       | $(\sigma'_1 + \sigma'_3) / 2, (\sigma'_v + \sigma'_h) / 2$      | $\sigma_h, \sigma_h'$ | horizontal normal stress                        |
| $p'_c$     | $p'$ at consolidation                                           | $\sigma_v, \sigma_v'$ | vertical normal stress                          |
| Q          | quantity of flow                                                | $\sigma_1$            | major principal stress                          |
| q          | $(\sigma_1 - \sigma_3) / 2$                                     | $\sigma_2$            | intermediate principal stress                   |
| $q_f$      | q at failure                                                    | $\sigma_3$            | minor principal stress                          |
| $q_o, q_i$ | initial q                                                       | $\tau$                | shear stress                                    |
| $q_c$      | q at consolidation                                              | $\phi$                | friction angle based on total stresses          |
| S          | degree of saturation                                            | $\phi'$               | friction angle based on effective stresses      |
| SL         | shrinkage limit                                                 | $\phi'_r$             | residual friction angle                         |
| $s_u$      | undrained shear strength                                        | $\phi_{ult}$          | $\phi$ for ultimate strength                    |
| T          | time factor for consolidation                                   |                       |                                                 |

#### **Item No. 4 – Off-Site Borrow Source Geotechnical Testing Results**



**SHEPLEY'S HILL LANDFILL  
BARRIER WALL**

**SUBMITTAL**

**SPECIFICATION SECTION 02300  
PARAGRAPH 1.4 A1.(a) & A1.(b)  
BORROW SOURCE**

**DATE SUBMITTED**

**8-6-12**

**Borrow Source: Shepley's Hill Landfill**

**W. J. Graves Construction Co. Inc.**

**192 Depot Road**

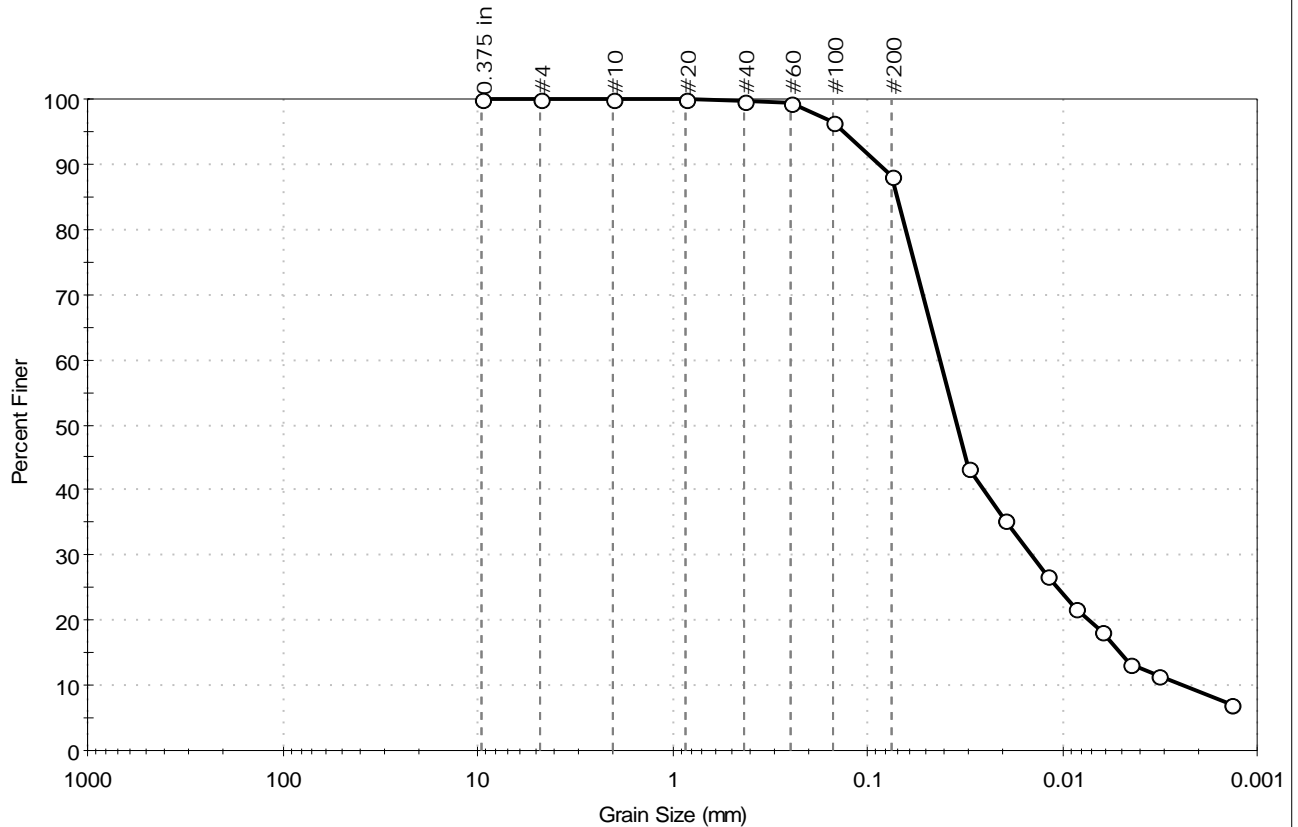
**Templeton, MA 01438**





|                                             |                       |                 |
|---------------------------------------------|-----------------------|-----------------|
| Client: Moretrench American Corp.           | Project No: GTX-11659 |                 |
| Project: Shepley Landfill                   |                       |                 |
| Location: Devens, MA                        |                       |                 |
| Boring ID: ---                              | Sample Type: bag      | Tested By: jbr  |
| Sample ID: CLAY / SILT (Graves)             | Test Date: 03/30/12   | Checked By: jdt |
| Depth: ---                                  | Test Id: 233079       |                 |
| Test Comment: ---                           |                       |                 |
| Sample Description: Moist, olive brown silt |                       |                 |
| Sample Comment: ---                         |                       |                 |

## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
|----------|----------|--------|--------------------|
| ---      | 0.1      | 11.7   | 88.2               |

| Sieve Name | Sieve Size, mm     | Percent Finer | Spec. Percent | Complies |
|------------|--------------------|---------------|---------------|----------|
| 0.375 in   | 9.50               | 100           |               |          |
| #4         | 4.75               | 100           |               |          |
| #10        | 2.00               | 100           |               |          |
| #20        | 0.85               | 100           |               |          |
| #40        | 0.42               | 100           |               |          |
| #60        | 0.25               | 99            |               |          |
| #100       | 0.15               | 97            |               |          |
| #200       | 0.075              | 88            |               |          |
| ---        | Particle Size (mm) | Percent Finer | Spec. Percent | Complies |
| ---        | 0.0303             | 43            |               |          |
| ---        | 0.0196             | 35            |               |          |
| ---        | 0.0119             | 27            |               |          |
| ---        | 0.0086             | 22            |               |          |
| ---        | 0.0062             | 18            |               |          |
| ---        | 0.0045             | 13            |               |          |
| ---        | 0.0032             | 11            |               |          |
| ---        | 0.0014             | 7             |               |          |

### Coefficients

|                             |                             |
|-----------------------------|-----------------------------|
| D <sub>85</sub> = 0.0702 mm | D <sub>30</sub> = 0.0144 mm |
| D <sub>60</sub> = 0.0424 mm | D <sub>15</sub> = 0.0050 mm |
| D <sub>50</sub> = 0.0347 mm | D <sub>10</sub> = 0.0024 mm |
| C <sub>u</sub> = N/A        | C <sub>c</sub> = N/A        |

### Classification

ASTM silt (ML)

AASHTO Clayey Soils (A-6 (14))

### Sample/Test Description

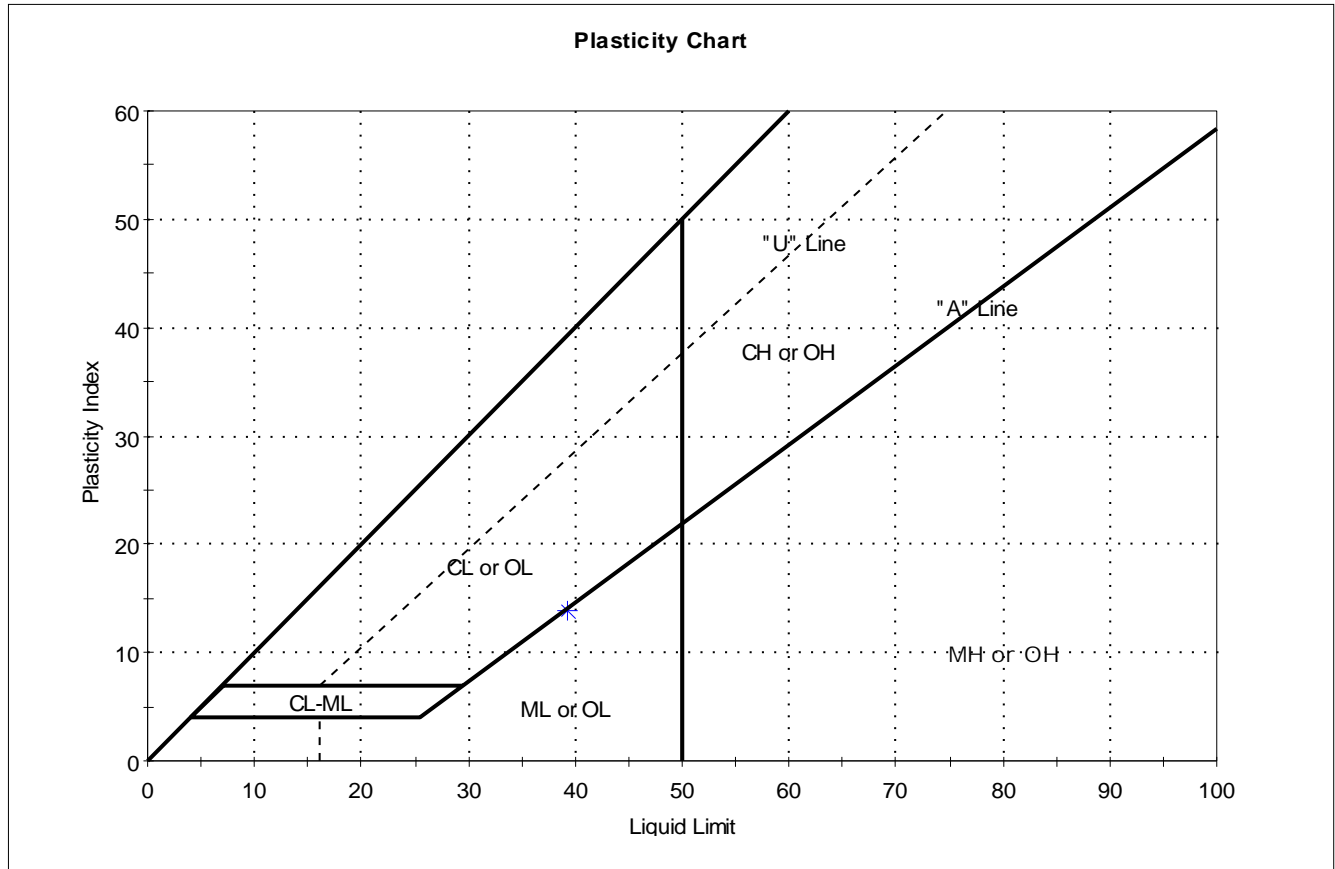
Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---



|                     |                           |              |           |
|---------------------|---------------------------|--------------|-----------|
| Client:             | Moretrench American Corp. |              |           |
| Project:            | Shepley Landfill          |              |           |
| Location:           | Devens, MA                | Project No:  | GTX-11659 |
| Boring ID:          | ---                       | Sample Type: | bag       |
| Sample ID:          | CLAY / SILT (Graves)      | Test Date:   | 03/30/12  |
| Depth :             | ---                       | Test Id:     | 233080    |
| Test Comment:       | ---                       |              |           |
| Sample Description: | Moist, olive brown silt   |              |           |
| Sample Comment:     | ---                       |              |           |

## Atterberg Limits - ASTM D 4318-05



| Symbol | Sample ID            | Boring | Depth | Natural Moisture Content, % | Liquid Limit | Plastic Limit | Plasticity Index | Liquidity Index | Soil Classification |
|--------|----------------------|--------|-------|-----------------------------|--------------|---------------|------------------|-----------------|---------------------|
| *      | CLAY / SILT (Graves) | ---    | ---   | 26                          | 39           | 26            | 13               | 0               | silt (ML)           |

Sample Prepared using the WET method

0% Retained on #40 Sieve

Dry Strength: HIGH

Dilatancy: RAPID

Toughness: LOW

JHN-20-2000 11.14 PHOENIX PROCESS EQUIP. 302 433 1813 P.13/14



PHOENIX Laboratory Outashed

W.J. Graves

I.D. 9082002

Particle Sizing Distribution Graph

| Mesh Size | Wt. Retained (gm) | Cumulative Wt. Retained (gm) | Percent of Total Wt. | Cumulative Wt. Percent | Percent of Solids Passing |
|-----------|-------------------|------------------------------|----------------------|------------------------|---------------------------|
| +1"       | 0.0000            | 0.0000                       | 0.00%                | 0.00%                  | 100.00%                   |
| +1/2"     | 0.0000            | 0.0000                       | 0.00%                | 0.00%                  | 100.00%                   |
| +1/4"     | 0.0000            | 0.0000                       | 0.00%                | 0.00%                  | 100.00%                   |
| +8        | 0.0000            | 0.0000                       | 0.00%                | 0.00%                  | 100.00%                   |
| +18       | 0.0000            | 0.0000                       | 0.00%                | 0.00%                  | 100.00%                   |
| +28       | 0.0100            | 0.0100                       | 0.25%                | 0.25%                  | 99.75%                    |
| +50       | 0.0100            | 0.0200                       | 0.25%                | 0.51%                  | 99.49%                    |
| +100      | 0.0100            | 0.0300                       | 15.52%               | 16.03%                 | 83.97%                    |
| +200      | 1.3000            | 1.8300                       | 33.08%               | 49.11%                 | 50.89%                    |
| +250      | 0.2500            | 2.2200                       | 7.38%                | 56.49%                 | 43.51%                    |
| +270      | 0.2300            | 2.4500                       | 5.85%                | 62.34%                 | 37.66%                    |
| +325      | 0.1000            | 2.5500                       | 2.54%                | 64.89%                 | 35.11%                    |
| +400      | 0.2300            | 2.7800                       | 5.85%                | 70.74%                 | 29.26%                    |
| -400      | 1.1500            | 3.9300                       | 29.26%               | 100.00%                | 0.00%                     |

Feed Solid% =

2.21%

| <b>TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR<br/>MANUFACTURER'S CERTIFICATES OF COMPLIANCE</b><br><i>(Read instructions on reverse side prior to initiating this form)</i> |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         | <b>DATE</b><br>August 7, 2012                |                                      | <b>TRANSMITTAL NO:</b><br><b>002</b>                                                                                                                                |                                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| <b>SECTION I - REQUEST FOR APPROVAL OF THE FOLLOWING ITEMS</b> (This section will be initiated by the Contractor)                                                                                   |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
| <b>TO:</b><br>Zachary Mothershed - Project Engineer<br>US Army Corps of Engineers<br>696 Virginia Road<br>Concord, MA 01742-2751                                                                    |                                                                                 |                                                                                              | <b>FROM:</b><br>Sovereign Consulting, Inc.<br>16 Chestnut Street, Suite 520<br>Foxboro, MA 02035                                                  |                                                                                                                                                                                                                                                                                                                         | <b>CONTRACT NO:</b><br>W912WJ-10-D-0003-0002 |                                      | <b>CHECK ONE:</b><br><input checked="checked" type="checkbox"/> THIS IS A NEW TRANSMITTAL<br><input type="checkbox"/> THIS IS A RESUBMITTAL OF<br>TRANSMITTAL _____ |                                |
| SPECIFICATION SECTION NO: (Cover only one section with each transmittal)<br><div style="text-align: center; font-weight: bold; font-size: 1.2em;">02215</div>                                       |                                                                                 |                                                                                              | PROJECT TITLE AND LOCATION:<br><div style="text-align: center;"> <b>Shepley's Hill Landfill<br/>Barrier Wall<br/>Devens, Massachusetts</b> </div> |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
| ITEM<br>NO.<br><br>a.                                                                                                                                                                               | DESCRIPTION OF ITEM SUBMITTED<br><br>(Type, size, model number, etc.)<br><br>b. | MFG. OR CONTR. CAT.<br>CURVE DRAWING OR<br>BROCHURE NO.<br>(See instruction No. 8)<br><br>c. | NO. OF<br>COPIES<br><br>d.                                                                                                                        | CONTRACT REFERENCE<br>DOCUMENT                                                                                                                                                                                                                                                                                          |                                              | FOR CONTRACTOR<br>USE CODE<br><br>g. | VARIATION<br>(See instruction<br>No. 6)<br><br>h.                                                                                                                   | FORCE<br>USE<br>CODE<br><br>i. |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   | SPEC. PARA.<br>NO.<br><br>e.                                                                                                                                                                                                                                                                                            | DRAWING<br>SHEET NO.<br><br>f.               |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   | 1.7                                                                                                                                                                                                                                                                                                                     | ~                                            |                                      |                                                                                                                                                                     |                                |
| 1                                                                                                                                                                                                   | Bentonite - Certification - 7/26/12 - 8/2/12 Delivery Dates                     | N/A                                                                                          | 1                                                                                                                                                 | 1.7                                                                                                                                                                                                                                                                                                                     | ~                                            | FIO                                  | ~                                                                                                                                                                   |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
| REMARKS                                                                                                                                                                                             |                                                                                 |                                                                                              |                                                                                                                                                   | I certify that the above submitted items have been reviewed<br>in detail and correct and in strict conformance with the<br>contract drawings and specifications except as otherwise stated.<br><br><div style="text-align: right;"> <u>Thomas B. Hevner</u> <br/>         NAME AND SIGNATURE OF CONTRACTOR       </div> |                                              |                                      |                                                                                                                                                                     |                                |
| <b>SECTION II - APPROVAL ACTION</b>                                                                                                                                                                 |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
| ENCLOSURES RETURNED (List by Item No.)                                                                                                                                                              |                                                                                 |                                                                                              | NAME, TITLE AND SIGNATURE OF APPROVING AUTHORITY                                                                                                  |                                                                                                                                                                                                                                                                                                                         |                                              |                                      | DATE                                                                                                                                                                |                                |

# **WYO-BEN, INC.**

## **CERTIFICATE OF ANALYSIS**

**DATE:** 08/06/12

**TO:** MORETRENCH AMERICAN CORP.

**SHIP DATE:** 07/31/12

**PRODUCT:** HYDROGEL

**LOT NO.:** 07311232

**ORDER NO.:** 74835

**P.O.:** 614827

**TRUCK NO.:** HI-BALL-70

**EMAIL:** [dguy@mtac.com](mailto:dguy@mtac.com)

THE FOLLOWING RESULTS WERE OBTAINED FROM TESTS RUN ON A  
COMPOSITE SAMPLE TAKEN FROM THE ABOVE LOT.

| <b>Lot Number</b> | <b>07311232</b> | <b>Specification</b> |
|-------------------|-----------------|----------------------|
| 600rpm Reading    | 46              | 30 Minimum           |
| 300rpm Reading    | 35              | No Specification     |
| YP/PV RATIO       | 2.18            | 3.00 Maximum         |
| MOISTURE %        | 6.7             | No Specification     |
| WATER LOSS        | 13.0            | 15.0 Maximum         |
| pH                | 9.9             | No Specification     |
| WET SCREEN %-200  | 3.6             | 4.0 Maximum          |

WE CERTIFY THAT THE TEST RESULTS CONTAINED HEREIN ARE  
ACCURATE AS REPORTED. THE RESULTS SHOULD BE REPLICATIVE  
ALLOWING FOR A MARGIN OF TEST PROCEDURE AND OPERATOR ERROR.  
WE ALSO CERTIFY THAT THE ABOVE PRODUCT DOES MEET OR EXCEED  
ALL SPECIFICATIONS SET FORTH IN API 13A SECTION 9, SEVENTEENTH EDITION  
FOR BENTONITE.

**WYO-BEN, INC.**

*Sue Anderson*

---

Sue Anderson  
Quality Assurance

STUCCO PLANT  
WYOMING OPERATIONS OFFICE  
P.O. BOX 1072  
GREYBULL, WYOMING 82426 USA

SAGE CREEK PLANT  
Lovell, Wyoming

LUCERNE PLANT  
Thermopolis, Wyoming

CORPORATE HEADQUARTERS  
Billings, Montana

# WYO-BEN, INC.

## CERTIFICATE OF ANALYSIS

DATE: 08/06/12

TO: MORETRENCH AMERICAN CORP. SHIP DATE: 08/02/12

PRODUCT: HYDROGEL LOT NO.: 07311232

ORDER NO.: 74836 P.O.: 614827

TRUCK NO.: PRIME-620156 EMAIL: [dguy@mtac.com](mailto:dguy@mtac.com)

THE FOLLOWING RESULTS WERE OBTAINED FROM TESTS RUN ON A  
COMPOSITE SAMPLE TAKEN FROM THE ABOVE LOT.

| Lot Number       | 07311232 | Specification    |
|------------------|----------|------------------|
| 600rpm Reading   | 46       | 30 Minimum       |
| 300rpm Reading   | 35       | No Specification |
| YP/PV RATIO      | 2.18     | 3.00 Maximum     |
| MOISTURE %       | 6.7      | No Specification |
| WATER LOSS       | 13.0     | 15.0 Maximum     |
| pH               | 9.9      | No Specification |
| WET SCREEN %-200 | 3.6      | 4.0 Maximum      |

WE CERTIFY THAT THE TEST RESULTS CONTAINED HEREIN ARE  
ACCURATE AS REPORTED. THE RESULTS SHOULD BE REPLICATIVE  
ALLOWING FOR A MARGIN OF TEST PROCEDURE AND OPERATOR ERROR.  
WE ALSO CERTIFY THAT THE ABOVE PRODUCT DOES MEET OR EXCEED  
ALL SPECIFICATIONS SET FORTH IN API 13A SECTION 9, SEVENTEENTH EDITION  
FOR BENTONITE.

**WYO-BEN, INC.**

*Sue Anderson*

---

Sue Anderson  
Quality Assurance

STUCCO PLANT  
WYOMING OPERATIONS OFFICE  
P.O. BOX 1072  
GREYBULL, WYOMING 82426 USA

SAGE CREEK PLANT  
Lovell, Wyoming

LUCERNE PLANT  
Thermopolis, Wyoming

CORPORATE HEADQUARTERS  
Billings, Montana

# WYO-BEN, INC.

## CERTIFICATE OF ANALYSIS

DATE: 08/06/12

TO: MORETRENCH AMERICAN CORP. SHIP DATE: 07/26/12

PRODUCT: HYDROGEL LOT NO.: 06191221

ORDER NO.: 74830 P.O.: 614827

TRUCK NO.: AMERI-CO-1016 EMAIL: [dguy@mtac.com](mailto:dguy@mtac.com)

THE FOLLOWING RESULTS WERE OBTAINED FROM TESTS RUN ON A  
COMPOSITE SAMPLE TAKEN FROM THE ABOVE LOT.

| Lot Number       | 06191221 | Specification    |
|------------------|----------|------------------|
| 600rpm Reading   | 43       | 30 Minimum       |
| 300rpm Reading   | 31       | No Specification |
| YP/PV RATIO      | 1.58     | 3.00 Maximum     |
| MOISTURE %       | 10.0     | No Specification |
| WATER LOSS       | 12.2     | 15.0 Maximum     |
| pH               | 9.5      | No Specification |
| WET SCREEN %-200 | 3.4      | 4.0 Maximum      |

WE CERTIFY THAT THE TEST RESULTS CONTAINED HEREIN ARE  
ACCURATE AS REPORTED. THE RESULTS SHOULD BE REPLICATIVE  
ALLOWING FOR A MARGIN OF TEST PROCEDURE AND OPERATOR ERROR.  
WE ALSO CERTIFY THAT THE ABOVE PRODUCT DOES MEET OR EXCEED  
ALL SPECIFICATIONS SET FORTH IN API 13A SECTION 9, SEVENTEENTH EDITION  
FOR BENTONITE.

**WYO-BEN, INC.**

*Sue Anderson*

---

Sue Anderson  
Quality Assurance

STUCCO PLANT  
WYOMING OPERATIONS OFFICE  
P.O. BOX 1072  
GREYBULL, WYOMING 82426 USA

SAGE CREEK PLANT  
Lovell, Wyoming

LUCERNE PLANT  
Thermopolis, Wyoming

CORPORATE HEADQUARTERS  
Billings, Montana

# **WYO-BEN, INC.**

## **CERTIFICATE OF ANALYSIS**

**DATE:** 08/06/12

**TO:** MORETRENCH AMERICAN CORP.

**SHIP DATE:** 07/31/12

**PRODUCT:** HYDROGEL

**LOT NO.:** 07301222

**ORDER NO.:** 74831

**P.O.:** 614827

**TRUCK NO.:** QUALITY-66

**EMAIL:** [dguy@mtac.com](mailto:dguy@mtac.com)

THE FOLLOWING RESULTS WERE OBTAINED FROM TESTS RUN ON A  
COMPOSITE SAMPLE TAKEN FROM THE ABOVE LOT.

| <b>Lot Number</b> | <b>07301222</b> | <b>Specification</b> |
|-------------------|-----------------|----------------------|
| 600rpm Reading    | 41              | 30 Minimum           |
| 300rpm Reading    | 29              | No Specification     |
| YP/PV RATIO       | 1.42            | 3.00 Maximum         |
| MOISTURE %        | 9.2             | No Specification     |
| WATER LOSS        | 12.4            | 15.0 Maximum         |
| pH                | 9.4             | No Specification     |
| WET SCREEN %-200  | 3.5             | 4.0 Maximum          |

WE CERTIFY THAT THE TEST RESULTS CONTAINED HEREIN ARE  
ACCURATE AS REPORTED. THE RESULTS SHOULD BE REPLICATIVE  
ALLOWING FOR A MARGIN OF TEST PROCEDURE AND OPERATOR ERROR.  
WE ALSO CERTIFY THAT THE ABOVE PRODUCT DOES MEET OR EXCEED  
ALL SPECIFICATIONS SET FORTH IN API 13A SECTION 9, SEVENTEENTH EDITION  
FOR BENTONITE.

**WYO-BEN, INC.**

*Sue Anderson*

---

Sue Anderson  
Quality Assurance

STUCCO PLANT  
WYOMING OPERATIONS OFFICE  
P.O. BOX 1072  
GREYBULL, WYOMING 82426 USA

SAGE CREEK PLANT  
Lovell, Wyoming

LUCERNE PLANT  
Thermopolis, Wyoming

CORPORATE HEADQUARTERS  
Billings, Montana



# **WYO-BEN, INC.**

## **CERTIFICATE OF ANALYSIS**

**DATE:** 08/06/12

**TO:** MORETRENCH AMERICAN CORP.

**SHIP DATE:** 07/31/12

**PRODUCT:** HYDROGEL

**LOT NO.:** 07301222

**ORDER NO.:** 74948

**P.O.:** 614827

**TRUCK NO.:** HIGHBALL-36

**EMAIL:** [dguy@mtac.com](mailto:dguy@mtac.com)

THE FOLLOWING RESULTS WERE OBTAINED FROM TESTS RUN ON A  
COMPOSITE SAMPLE TAKEN FROM THE ABOVE LOT.

| <b>Lot Number</b> | <b>07301222</b> | <b>Specification</b> |
|-------------------|-----------------|----------------------|
| 600rpm Reading    | 41              | 30 Minimum           |
| 300rpm Reading    | 29              | No Specification     |
| YP/PV RATIO       | 1.42            | 3.00 Maximum         |
| MOISTURE %        | 9.2             | No Specification     |
| WATER LOSS        | 12.4            | 15.0 Maximum         |
| pH                | 9.4             | No Specification     |
| WET SCREEN %-200  | 3.5             | 4.0 Maximum          |

WE CERTIFY THAT THE TEST RESULTS CONTAINED HEREIN ARE  
ACCURATE AS REPORTED. THE RESULTS SHOULD BE REPLICATIVE  
ALLOWING FOR A MARGIN OF TEST PROCEDURE AND OPERATOR ERROR.  
WE ALSO CERTIFY THAT THE ABOVE PRODUCT DOES MEET OR EXCEED  
ALL SPECIFICATIONS SET FORTH IN API 13A SECTION 9, SEVENTEENTH EDITION  
FOR BENTONITE.

**WYO-BEN, INC.**

*Sue Anderson*

---

Sue Anderson  
Quality Assurance

STUCCO PLANT  
WYOMING OPERATIONS OFFICE  
P.O. BOX 1072  
GREYBULL, WYOMING 82426 USA

SAGE CREEK PLANT  
Lovell, Wyoming

LUCERNE PLANT  
Thermopolis, Wyoming

CORPORATE HEADQUARTERS  
Billings, Montana

# **WYO-BEN, INC.**

## **CERTIFICATE OF ANALYSIS**

**DATE:** 08/06/12

**TO:** MORETRENCH AMERICAN CORP. **SHIP DATE:** 08/02/12

**PRODUCT:** HYDROGEL **LOT NO.:** 07301222

**ORDER NO.:** 74949 **P.O.:** 614827

**TRUCK NO.:** STEELMAN-A15 **EMAIL:** [dguy@mtac.com](mailto:dguy@mtac.com)

THE FOLLOWING RESULTS WERE OBTAINED FROM TESTS RUN ON A  
COMPOSITE SAMPLE TAKEN FROM THE ABOVE LOT.

| <b>Lot Number</b> | <b>07301222</b> | <b>Specification</b> |
|-------------------|-----------------|----------------------|
| 600rpm Reading    | 41              | 30 Minimum           |
| 300rpm Reading    | 29              | No Specification     |
| YP/PV RATIO       | 1.42            | 3.00 Maximum         |
| MOISTURE %        | 9.2             | No Specification     |
| WATER LOSS        | 12.4            | 15.0 Maximum         |
| pH                | 9.4             | No Specification     |
| WET SCREEN %-200  | 3.5             | 4.0 Maximum          |

WE CERTIFY THAT THE TEST RESULTS CONTAINED HEREIN ARE  
ACCURATE AS REPORTED. THE RESULTS SHOULD BE REPLICATIVE  
ALLOWING FOR A MARGIN OF TEST PROCEDURE AND OPERATOR ERROR.  
WE ALSO CERTIFY THAT THE ABOVE PRODUCT DOES MEET OR EXCEED  
ALL SPECIFICATIONS SET FORTH IN API 13A SECTION 9, SEVENTEENTH EDITION  
FOR BENTONITE.

**WYO-BEN, INC.**

*Sue Anderson*

---

Sue Anderson  
Quality Assurance

STUCCO PLANT  
WYOMING OPERATIONS OFFICE  
P.O. BOX 1072  
GREYBULL, WYOMING 82426 USA

SAGE CREEK PLANT  
Lovell, Wyoming

LUCERNE PLANT  
Thermopolis, Wyoming

CORPORATE HEADQUARTERS  
Billings, Montana

| <b>TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR<br/>MANUFACTURER'S CERTIFICATES OF COMPLIANCE</b><br><i>(Read instructions on reverse side prior to initiating this form)</i> |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         | <b>DATE</b><br>September 13, 2012            |                                      | <b>TRANSMITTAL NO:</b><br><b>003</b>                                                                                                                      |                                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| <b>SECTION I - REQUEST FOR APPROVAL OF THE FOLLOWING ITEMS</b> (This section will be initiated by the Contractor)                                                                                   |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                           |                                |
| <b>TO:</b><br>Zachary Mothershed - Project Engineer<br>US Army Corps of Engineers<br>696 Virginia Road<br>Concord, MA 01742-2751                                                                    |                                                                                 |                                                                                                  | <b>FROM:</b><br>Sovereign Consulting, Inc.<br>16 Chestnut Street, Suite 520<br>Foxboro, MA 02035                                                  |                                                                                                                                                                                                                                                                                                                         | <b>CONTRACT NO:</b><br>W912WJ-10-D-0003-0002 |                                      | <b>CHECK ONE:</b><br><input checked="" type="checkbox"/> THIS IS A NEW TRANSMITTAL<br><input type="checkbox"/> THIS IS A RESUBMITTAL OF TRANSMITTAL _____ |                                |
| SPECIFICATION SECTION NO: (Cover only one section with each transmittal)<br><div style="text-align: center; font-weight: bold; font-size: 1.2em;">02215</div>                                       |                                                                                 |                                                                                                  | PROJECT TITLE AND LOCATION:<br><div style="text-align: center;"> <b>Shepley's Hill Landfill<br/>Barrier Wall<br/>Devens, Massachusetts</b> </div> |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                           |                                |
| ITEM<br>NO.<br><br>a.                                                                                                                                                                               | DESCRIPTION OF ITEM SUBMITTED<br><br>(Type, size, model number, etc.)<br><br>b. | MFG. OR CONTR. CAT.<br>CURVE DRAWING OR<br>BROCHURE NO.<br><br>(See instruction No. 8)<br><br>c. | NO. OF<br>COPIES<br><br>d.                                                                                                                        | CONTRACT REFERENCE                                                                                                                                                                                                                                                                                                      |                                              | FOR CONTRACTOR<br>USE CODE<br><br>g. | VARIATION<br><br>(See instruction<br>No. 6)<br><br>h.                                                                                                     | FORCE<br>USE<br>CODE<br><br>i. |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   | DOCUMENT                                                                                                                                                                                                                                                                                                                |                                              |                                      |                                                                                                                                                           |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   | SPEC. PARA.<br>NO.<br><br>e.                                                                                                                                                                                                                                                                                            | DRAWING<br>SHEET NO.<br><br>f.               |                                      |                                                                                                                                                           |                                |
| 1                                                                                                                                                                                                   | Bentonite - Certification - 8/29/12 Delivery Date                               | N/A                                                                                              | 1                                                                                                                                                 | 1.7                                                                                                                                                                                                                                                                                                                     | ~                                            | FIO                                  | ~                                                                                                                                                         |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                           |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                           |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                           |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                           |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                           |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                           |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                           |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                           |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                           |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                           |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                           |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                           |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                           |                                |
| REMARKS                                                                                                                                                                                             |                                                                                 |                                                                                                  |                                                                                                                                                   | I certify that the above submitted items have been reviewed<br>in detail and correct and in strict conformance with the<br>contract drawings and specifications except as otherwise stated.<br><br><div style="text-align: right;"> <u>Thomas B. Hevner</u> <br/>         NAME AND SIGNATURE OF CONTRACTOR       </div> |                                              |                                      |                                                                                                                                                           |                                |
| <b>SECTION II - APPROVAL ACTION</b>                                                                                                                                                                 |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                           |                                |
| ENCLOSURES RETURNED (List by Item No.)                                                                                                                                                              |                                                                                 |                                                                                                  | NAME, TITLE AND SIGNATURE OF APPROVING AUTHORITY                                                                                                  |                                                                                                                                                                                                                                                                                                                         |                                              |                                      | DATE                                                                                                                                                      |                                |

# WYO-BEN, INC.

## CERTIFICATE OF ANALYSIS

DATE: 08/29/12

TO: MORETRENCH AMERICAN CORP. SHIP DATE: 08/28/12

PRODUCT: HYDROGEL LOT NO.: 08231232

ORDER NO.: 76403 P.O.: 614827

TRUCK NO.: CRST MALONE-W2730M EMAIL: [dguy@mtac.com](mailto:dguy@mtac.com)

THE FOLLOWING RESULTS WERE OBTAINED FROM TESTS RUN ON A  
COMPOSITE SAMPLE TAKEN FROM THE ABOVE LOT.

| Lot Number       | 08231232 | Specification    |
|------------------|----------|------------------|
| 600rpm Reading   | 38       | 30 Minimum       |
| 300rpm Reading   | 28       | No Specification |
| YP/PV RATIO      | 1.80     | 3.00 Maximum     |
| MOISTURE %       | 8.1      | No Specification |
| WATER LOSS       | 13.4     | 15.0 Maximum     |
| pH               | 9.9      | No Specification |
| WET SCREEN %-200 | 3.4      | 4.0 Maximum      |

WE CERTIFY THAT THE TEST RESULTS CONTAINED HEREIN ARE  
ACCURATE AS REPORTED. THE RESULTS SHOULD BE REPLICATIVE  
ALLOWING FOR A MARGIN OF TEST PROCEDURE AND OPERATOR ERROR.  
WE ALSO CERTIFY THAT THE ABOVE PRODUCT DOES MEET OR EXCEED  
ALL SPECIFICATIONS SET FORTH IN API 13A SECTION 9, SEVENTEENTH EDITION  
FOR BENTONITE.

**WYO-BEN, INC.**

*Sue Anderson*

---

Sue Anderson  
Quality Assurance

STUCCO PLANT  
WYOMING OPERATIONS OFFICE  
P.O. BOX 1072  
GREYBULL, WYOMING 82426 USA

SAGE CREEK PLANT  
Lovell, Wyoming

LUCERNE PLANT  
Thermopolis, Wyoming

CORPORATE HEADQUARTERS  
Billings, Montana

# **WYO-BEN, INC.**

## **CERTIFICATE OF ANALYSIS**

**DATE:** 08/29/12

**TO:** MORETRENCH AMERICAN CORP. **SHIP DATE:** 08/28/12

**PRODUCT:** HYDROGEL **LOT NO.:** 07301222

**ORDER NO.:** 75319 **P.O.:** 614827

**TRUCK NO.:** CRST-W2537M **EMAIL:** [dguy@mtac.com](mailto:dguy@mtac.com)

THE FOLLOWING RESULTS WERE OBTAINED FROM TESTS RUN ON A  
COMPOSITE SAMPLE TAKEN FROM THE ABOVE LOT.

| <b>Lot Number</b> | <b>07301222</b> | <b>Specification</b> |
|-------------------|-----------------|----------------------|
| 600rpm Reading    | 41              | 30 Minimum           |
| 300rpm Reading    | 29              | No Specification     |
| YP/PV RATIO       | 1.42            | 3.00 Maximum         |
| MOISTURE %        | 9.2             | No Specification     |
| WATER LOSS        | 12.4            | 15.0 Maximum         |
| pH                | 9.4             | No Specification     |
| WET SCREEN %-200  | 3.5             | 4.0 Maximum          |

WE CERTIFY THAT THE TEST RESULTS CONTAINED HEREIN ARE  
ACCURATE AS REPORTED. THE RESULTS SHOULD BE REPLICATIVE  
ALLOWING FOR A MARGIN OF TEST PROCEDURE AND OPERATOR ERROR.  
WE ALSO CERTIFY THAT THE ABOVE PRODUCT DOES MEET OR EXCEED  
ALL SPECIFICATIONS SET FORTH IN API 13A SECTION 9, SEVENTEENTH EDITION  
FOR BENTONITE.

**WYO-BEN, INC.**

*Sue Anderson*

---

Sue Anderson  
Quality Assurance

STUCCO PLANT  
WYOMING OPERATIONS OFFICE  
P.O. BOX 1072  
GREYBULL, WYOMING 82426 USA

SAGE CREEK PLANT  
Lovell, Wyoming

LUCERNE PLANT  
Thermopolis, Wyoming

CORPORATE HEADQUARTERS  
Billings, Montana

| <b>TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR<br/>MANUFACTURER'S CERTIFICATES OF COMPLIANCE</b><br><i>(Read instructions on reverse side prior to initiating this form)</i> |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         | <b>DATE</b><br>September 13, 2012            |                                      | <b>TRANSMITTAL NO:</b><br><b>004</b>                                                                                                                                |                                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| <b>SECTION I - REQUEST FOR APPROVAL OF THE FOLLOWING ITEMS</b> (This section will be initiated by the Contractor)                                                                                   |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
| <b>TO:</b><br>Zachary Mothershed - Project Engineer<br>US Army Corps of Engineers<br>696 Virginia Road<br>Concord, MA 01742-2751                                                                    |                                                                                 |                                                                                              | <b>FROM:</b><br>Sovereign Consulting, Inc.<br>16 Chestnut Street, Suite 520<br>Foxboro, MA 02035                                                  |                                                                                                                                                                                                                                                                                                                         | <b>CONTRACT NO:</b><br>W912WJ-10-D-0003-0002 |                                      | <b>CHECK ONE:</b><br><input checked="checked" type="checkbox"/> THIS IS A NEW TRANSMITTAL<br><input type="checkbox"/> THIS IS A RESUBMITTAL OF<br>TRANSMITTAL _____ |                                |
| SPECIFICATION SECTION NO: (Cover only one section with each transmittal)<br><div style="text-align: center; font-weight: bold; font-size: 1.2em;">02300</div>                                       |                                                                                 |                                                                                              | PROJECT TITLE AND LOCATION:<br><div style="text-align: center;"> <b>Shepley's Hill Landfill<br/>Barrier Wall<br/>Devens, Massachusetts</b> </div> |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
| ITEM<br>NO.<br><br>a.                                                                                                                                                                               | DESCRIPTION OF ITEM SUBMITTED<br><br>(Type, size, model number, etc.)<br><br>b. | MFG. OR CONTR. CAT.<br>CURVE DRAWING OR<br>BROCHURE NO.<br>(See instruction No. 8)<br><br>c. | NO. OF<br>COPIES<br><br>d.                                                                                                                        | CONTRACT REFERENCE<br>DOCUMENT                                                                                                                                                                                                                                                                                          |                                              | FOR CONTRACTOR<br>USE CODE<br><br>g. | VARIATION<br>(See instruction<br>No. 6)<br><br>h.                                                                                                                   | FORCE<br>USE<br>CODE<br><br>i. |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   | SPEC. PARA.<br>NO.<br><br>e.                                                                                                                                                                                                                                                                                            | DRAWING<br>SHEET NO.<br><br>f.               |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   | 1.4                                                                                                                                                                                                                                                                                                                     | 8                                            |                                      |                                                                                                                                                                     |                                |
| 1                                                                                                                                                                                                   | Drainage Layer - Sand                                                           | N/A                                                                                          | 1                                                                                                                                                 | 1.4                                                                                                                                                                                                                                                                                                                     | 8                                            | FIO                                  | ~                                                                                                                                                                   |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
| REMARKS                                                                                                                                                                                             |                                                                                 |                                                                                              |                                                                                                                                                   | I certify that the above submitted items have been reviewed<br>in detail and correct and in strict conformance with the<br>contract drawings and specifications except as otherwise stated.<br><br><div style="text-align: right;"> <u>Thomas B. Hevner</u> <br/>         NAME AND SIGNATURE OF CONTRACTOR       </div> |                                              |                                      |                                                                                                                                                                     |                                |
| <b>SECTION II - APPROVAL ACTION</b>                                                                                                                                                                 |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
| ENCLOSURES RETURNED (List by Item No.)                                                                                                                                                              |                                                                                 |                                                                                              | NAME, TITLE AND SIGNATURE OF APPROVING AUTHORITY                                                                                                  |                                                                                                                                                                                                                                                                                                                         |                                              |                                      | DATE                                                                                                                                                                |                                |



**CONSTRUCTION CO. INC.**

192 Depot Road, P.O. Box 401

East Templeton, MA 01438

- Lancaster Pit

## Screened Sand

| <u>Sieve Size</u> | <u>% Passing</u> |
|-------------------|------------------|
| 3/8"              | 100              |
| 1/4"              | 97.7             |
| #4                | 93.41            |
| #8                | 84.19            |
| #16               | 70.76            |
| #30               | 46.08            |
| #50               | 19.91            |
| #100              | 6.60             |
| #200              | 2.39             |
| #100              | 0                |

| <b>TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR<br/>MANUFACTURER'S CERTIFICATES OF COMPLIANCE</b><br><small>(Read instructions on reverse side prior to initiating this form)</small> |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         | <b>DATE</b><br>September 14, 2012            |                                      | <b>TRANSMITTAL NO:</b><br><b>005</b>                                                                                                                      |                                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| <b>SECTION I - REQUEST FOR APPROVAL OF THE FOLLOWING ITEMS</b> (This section will be initiated by the Contractor)                                                                                           |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                           |                                |
| <b>TO:</b><br>Zachary Mothershed - Project Engineer<br>US Army Corps of Engineers<br>696 Virginia Road<br>Concord, MA 01742-2751                                                                            |                                                                                 |                                                                                              | <b>FROM:</b><br>Sovereign Consulting, Inc.<br>16 Chestnut Street, Suite 520<br>Foxboro, MA 02035                                                  |                                                                                                                                                                                                                                                                                                                         | <b>CONTRACT NO:</b><br>W912WJ-10-D-0003-0002 |                                      | <b>CHECK ONE:</b><br><input checked="" type="checkbox"/> THIS IS A NEW TRANSMITTAL<br><input type="checkbox"/> THIS IS A RESUBMITTAL OF TRANSMITTAL _____ |                                |
| SPECIFICATION SECTION NO: (Cover only one section with each transmittal)<br><div style="text-align: center; font-weight: bold; font-size: 1.2em;">02300</div>                                               |                                                                                 |                                                                                              | PROJECT TITLE AND LOCATION:<br><div style="text-align: center;"> <b>Shepley's Hill Landfill<br/>Barrier Wall<br/>Devens, Massachusetts</b> </div> |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                           |                                |
| ITEM<br>NO.<br><br>a.                                                                                                                                                                                       | DESCRIPTION OF ITEM SUBMITTED<br><br>(Type, size, model number, etc.)<br><br>b. | MFG. OR CONTR. CAT.<br>CURVE DRAWING OR<br>BROCHURE NO.<br>(See instruction No. 8)<br><br>c. | NO. OF<br>COPIES<br><br>d.                                                                                                                        | CONTRACT REFERENCE<br>DOCUMENT                                                                                                                                                                                                                                                                                          |                                              | FOR CONTRACTOR<br>USE CODE<br><br>g. | VARIATION<br>(See instruction<br>No. 6)<br><br>h.                                                                                                         | FORCE<br>USE<br>CODE<br><br>i. |
|                                                                                                                                                                                                             |                                                                                 |                                                                                              |                                                                                                                                                   | SPEC. PARA.<br>NO.<br><br>e.                                                                                                                                                                                                                                                                                            | DRAWING<br>SHEET NO.<br><br>f.               |                                      |                                                                                                                                                           |                                |
|                                                                                                                                                                                                             |                                                                                 |                                                                                              |                                                                                                                                                   | 1.4                                                                                                                                                                                                                                                                                                                     | C-302, F, G                                  |                                      |                                                                                                                                                           |                                |
| 1                                                                                                                                                                                                           | Woven Geotextile                                                                | N/A                                                                                          | 1                                                                                                                                                 | 1.4                                                                                                                                                                                                                                                                                                                     | C-302, F, G                                  | FIO                                  | ~                                                                                                                                                         |                                |
|                                                                                                                                                                                                             |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                           |                                |
|                                                                                                                                                                                                             |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                           |                                |
|                                                                                                                                                                                                             |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                           |                                |
|                                                                                                                                                                                                             |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                           |                                |
|                                                                                                                                                                                                             |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                           |                                |
|                                                                                                                                                                                                             |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                           |                                |
|                                                                                                                                                                                                             |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                           |                                |
|                                                                                                                                                                                                             |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                           |                                |
|                                                                                                                                                                                                             |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                           |                                |
|                                                                                                                                                                                                             |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                           |                                |
|                                                                                                                                                                                                             |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                           |                                |
|                                                                                                                                                                                                             |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                           |                                |
|                                                                                                                                                                                                             |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                           |                                |
| REMARKS                                                                                                                                                                                                     |                                                                                 |                                                                                              |                                                                                                                                                   | I certify that the above submitted items have been reviewed<br>in detail and correct and in strict conformance with the<br>contract drawings and specifications except as otherwise stated.<br><br><div style="text-align: right;"> <u>Thomas B. Hevner</u> <br/>         NAME AND SIGNATURE OF CONTRACTOR       </div> |                                              |                                      |                                                                                                                                                           |                                |
| <b>SECTION II - APPROVAL ACTION</b>                                                                                                                                                                         |                                                                                 |                                                                                              |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                           |                                |
| ENCLOSURES RETURNED (List by Item No.)                                                                                                                                                                      |                                                                                 |                                                                                              | NAME, TITLE AND SIGNATURE OF APPROVING AUTHORITY                                                                                                  |                                                                                                                                                                                                                                                                                                                         |                                              |                                      | DATE                                                                                                                                                      |                                |



## Mirafi® 600X

Mirafi® 600X geotextile is composed of high-tenacity polypropylene yarns, which are woven into a stable network such that the yarns retain their relative position. Mirafi® 600X geotextile is inert to biological degradation and resistant to naturally encountered chemicals, alkalis, and acids.

| Mechanical Properties                    | Test Method | Unit                                               | Minimum Average Roll Value |            |
|------------------------------------------|-------------|----------------------------------------------------|----------------------------|------------|
|                                          |             |                                                    | MD                         | CD         |
| Grab Tensile Strength                    | ASTM D4632  | lbs (N)                                            | 315 (1402)                 | 315 (1402) |
| Grab Tensile Elongation                  | ASTM D4632  | %                                                  | 12                         |            |
| Trapezoid Tear Strength                  | ASTM D4533  | lbs (N)                                            | 113 (503)                  | 113 (503)  |
| CBR Puncture Strength                    | ASTM D6241  | lbs (N)                                            | 900 (4005)                 |            |
| Apparent Opening Size (AOS) <sup>1</sup> | ASTM D4751  | U.S. Sieve (mm)                                    | 40 (0.43)                  |            |
| Permittivity                             | ASTM D4491  | sec <sup>-1</sup>                                  | 0.05                       |            |
| Flow Rate                                | ASTM D4491  | gal/min/ft <sup>2</sup><br>(l/min/m <sup>2</sup> ) | 4.0<br>(163)               |            |
| UV Resistance (at 500 hours)             | ASTM D4355  | % strength retained                                | 70                         |            |

<sup>1</sup> ASTM D4751, AOS is a Maximum Opening Diameter Value

| Physical Properties                 | Test Method | Unit                                   | Typical Value         |                    |                        |
|-------------------------------------|-------------|----------------------------------------|-----------------------|--------------------|------------------------|
| Weight                              | ASTM D5261  | oz/yd <sup>2</sup> (g/m <sup>2</sup> ) | 6.0 (203)             |                    |                        |
| Thickness                           | ASTM D5199  | mils (mm)                              | 25 (0.6)              |                    |                        |
| Roll Dimensions<br>(width x length) | --          | ft<br>(m)                              | 12.5x360<br>(3.8x110) | 15x300<br>(4.6x91) | 17.5x258<br>(5.3x78.7) |
| Roll Area                           | --          | yd <sup>2</sup> (m <sup>2</sup> )      | 500 (418)             |                    |                        |
| Estimated Roll Weight               | --          | lb (kg)                                | 240 (109)             |                    |                        |

**Disclaimer:** TenCate assumes no liability for the accuracy or completeness of this information or for the ultimate use by the purchaser. TenCate disclaims any and all express, implied, or statutory standards, warranties or guarantees, including without limitation any implied warranty as to merchantability or fitness for a particular purpose or arising from a course of dealing or usage of trade as to any equipment, materials, or information furnished herewith. This document should not be construed as engineering advice.

© 2012 TenCate Geosynthetics Americas  
Mirafi® is a registered trademark of Nicolon Corporation

| <b>TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR<br/>MANUFACTURER'S CERTIFICATES OF COMPLIANCE</b><br><i>(Read instructions on reverse side prior to initiating this form)</i> |                                                                                 |                                                                                                  |                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                         | <b>DATE</b><br>September 26, 2012            |                                      | <b>TRANSMITTAL NO:</b><br><b>006</b>                                                                                                                         |                                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| <b>SECTION I - REQUEST FOR APPROVAL OF THE FOLLOWING ITEMS</b> (This section will be initiated by the Contractor)                                                                                   |                                                                                 |                                                                                                  |                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
| <b>TO:</b><br>Zachary Mothershed - Project Engineer<br>US Army Corps of Engineers<br>696 Virginia Road<br>Concord, MA 01742-2751                                                                    |                                                                                 |                                                                                                  | <b>FROM:</b><br>Sovereign Consulting, Inc.<br>16 Chestnut Street, Suite 520<br>Foxboro, MA 02035                                                                                                              |                                                                                                                                                                                                                                                                                                                         | <b>CONTRACT NO:</b><br>W912WJ-10-D-0003-0002 |                                      | <b>CHECK ONE:</b><br><input checked="" type="checkbox"/> THIS IS A NEW TRANSMITTAL<br><input type="checkbox"/> THIS IS A RESUBMITTAL OF<br>TRANSMITTAL _____ |                                |
| SPECIFICATION SECTION NO: (Cover only one section with each transmittal)<br><div style="text-align: center; font-weight: bold; font-size: 1.2em;">02300, 02736</div>                                |                                                                                 |                                                                                                  | PROJECT TITLE AND LOCATION:<br><div style="text-align: center; font-weight: bold;">             Shepley's Hill Landfill<br/>             Barrier Wall<br/>             Devens, Massachusetts           </div> |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
| ITEM<br>NO.<br><br>a.                                                                                                                                                                               | DESCRIPTION OF ITEM SUBMITTED<br><br>(Type, size, model number, etc.)<br><br>b. | MFG. OR CONTR. CAT.<br>CURVE DRAWING OR<br>BROCHURE NO.<br><br>(See instruction No. 8)<br><br>c. | NO. OF<br>COPIES<br><br>d.                                                                                                                                                                                    | CONTRACT REFERENCE<br>DOCUMENT                                                                                                                                                                                                                                                                                          |                                              | FOR CONTRACTOR<br>USE CODE<br><br>g. | VARIATION<br><br>(See instruction<br>No. 6)<br><br>h.                                                                                                        | FORCE<br>USE<br>CODE<br><br>i. |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                                                                               | SPEC. PARA.<br>NO.<br><br>e.                                                                                                                                                                                                                                                                                            | DRAWING<br>SHEET NO.<br><br>f.               |                                      |                                                                                                                                                              |                                |
| 1                                                                                                                                                                                                   | PVC Geomembrane                                                                 | N/A                                                                                              | 1                                                                                                                                                                                                             | 1.4, 1.5                                                                                                                                                                                                                                                                                                                | C-302, E, F                                  | FIO                                  | ~                                                                                                                                                            |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
| REMARKS                                                                                                                                                                                             |                                                                                 |                                                                                                  |                                                                                                                                                                                                               | I certify that the above submitted items have been reviewed<br>in detail and correct and in strict conformance with the<br>contract drawings and specifications except as otherwise stated.<br><br><div style="text-align: right;"> <u>Thomas B. Hevner</u> <br/>         NAME AND SIGNATURE OF CONTRACTOR       </div> |                                              |                                      |                                                                                                                                                              |                                |
| <b>SECTION II - APPROVAL ACTION</b>                                                                                                                                                                 |                                                                                 |                                                                                                  |                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                              |                                |
| ENCLOSURES RETURNED (List by Item No.)                                                                                                                                                              |                                                                                 |                                                                                                  | NAME, TITLE AND SIGNATURE OF APPROVING AUTHORITY                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                         |                                              |                                      | DATE                                                                                                                                                         |                                |



---

**POLYVINYL CHLORIDE (PVC) GEOMEMBRANE FABRICATION  
AND  
QUALITY CONTROL PROCEDURES**

---

**SOLMAX INTERNATIONAL INC.**  
AUGUST 08

2801, Marie-Victorin boulevard, Varennes, Québec, Canada J3X 1P7

[WWW.SOLMAX.COM](http://WWW.SOLMAX.COM)

**Telephone** 4 5 0 9 2 9 1 2 3 4

**Sales** 4 5 0 9 2 9 2 5 4 4

**Fax** 4 5 0 9 2 9 1 2 2 7

ISO 9001 | ISO 14001

## TABLE OF CONTENTS

|                                                         |    |
|---------------------------------------------------------|----|
| 1. INTRODUCTION .....                                   | 2  |
| 2. MANUFACTURING CAPABILITIES.....                      | 2  |
| 3. BRIEF CORPORATE HISTORY .....                        | 3  |
| 4. PARTIAL LIST OF PVC PROJECTS REALIZED RECENTLY ..... | 3  |
| 5. QUALITY CONTROL (QC) PROCEDURES OF ROLL GOODS .....  | 6  |
| 6. PVC FACTORY FABRICATION .....                        | 6  |
| 7. DIELECTRIC WELDER QUALITY CONTROL PROCEDURES .....   | 6  |
| 7.1 CALIBRATION .....                                   | 6  |
| 7.2 DESTRUCTIVE TESTING (ONLY UPON REQUEST) .....       | 7  |
| 7.3 VISUAL INSPECTION AND REPAIR PROCEDURES .....       | 8  |
| 7.4 DOCUMENTATION .....                                 | 9  |
| 7.5 SPECIMEN SAMPLES .....                              | 9  |
| 8. PANEL AND ROLL IDENTIFICATION .....                  | 9  |
| 9. PACKAGING .....                                      | 10 |

### APPENDIX

- CORPORATE CERTIFICATIONS & MEMBERSHIPS
- PVC GEOMEMBRANE INSTITUTE (PGI) FABRICATION & INSTALLATION MANUAL

## 1. INTRODUCTION

The purpose of this document is to provide an overview of all Quality Control (QC) procedures conducted by Solmax International Inc. during the factory fabrication of Polyvinyl Chloride (PVC) geomembrane panels.

The following general guidelines are given for information purposes only. Project specifics can modify this Quality Control Program, which acts as a basis for projects without plans and specifications.

## 2. MANUFACTURING CAPABILITIES

The **Solmax International** plant is located in Varennes, Canada and it employs approximately 75 employees. The plant houses a state-of-the-art three-layer and a monolayer film blown extruders producing all common types of polyethylene geomembrane in 22 feet (6.7 m) wide rolls with the thickness ranging from 20 to 100 mil (0.50 to 2.50mm). Solmax processes various types of resins including High Density Polyethylene (HDPE) and other polyethylene configurations such as Very Flexible Polyethylene (VFPE). All of these resins can be used to manufacture geomembranes with smooth surfaces or with texture on one or both sides in order to improve friction properties.

Solmax also manufactures among the biggest PVC geomembrane panels in the industry on thickness ranging from 0.5mm to 1.50mm and reaching up to 4500m<sup>2</sup> long.

### SIZE OF PLANT:

- APPROXIMATE AREA OF THE PLANT IS 48,000 SQUARE FEET
- OUTSIDE STORAGE IS APPROXIMATELY 150,000 SQUARE FEET

### EQUIPMENT:

- BLOWN FILM BATTENFELD GLOUCESTER ENG. MONOLAYER 86 INCHES (CAPACITY OF 3200 POUNDS PER HOUR)
- BLOWN FILM BATTENFELD GLOUCESTER ENG. COEXTRUSION 3 SCREWS 86 INCHES (CAPACITY OF 3500 POUNDS PER HOUR)
- SOLMAX HAS TWO POLYETHYLENE PRODUCTION LINES
- K-BAR DIELECTRIC WELDING UNITS OF 15 KWA
- SOLMAX HAS THREE PVC PRODUCTION LINES

### NUMBER OF SHIFTS PER DAY:

- 2 SHIFTS OF 12 HOURS AND THE PRODUCTION IS CONTINUOUS (24/24)
- PRODUCTION IS CONTINUOUS

### PRODUCTION PER SHIFT:

- 65, 000 POUNDS PER SHIFT
- 15,000 M2 (BASED ON 0.75 MM THICK) FOR PVC

### ANNUAL CAPACITY

- APPROXIMATELY 48 000 000 POUNDS ANNUALLY (PE)
- APPROXIMATELY 15,000,000 M2 ANNUALLY (PVC)



### 3. BRIEF CORPORATE HISTORY

#### PVC FABRICATION ACTIVITIES

|      |                                                                                                    |
|------|----------------------------------------------------------------------------------------------------|
| 1989 | Addition of Factory Pre-fabrication Services – ON FLOOR                                            |
| 1991 | Optimization of our process through the automation of our first assembly line (dielectric process) |
| 1993 | First major project with the Government of Quebec (300 000 sm)                                     |
| 1998 | Beginning of our partnership with the worldwide leader SQM S.A.                                    |
| 1999 | Installation of a second automated assembly line                                                   |
| 2002 | Integration to our assembly lines of the a wind up system<br>► innovative method of folding        |
| 2003 | Mushrif project – Realization of the biggest water reservoir worldwide                             |
| 2003 | Manto Verde (Chile) – 1st time utilization of PVC in a large scale Copper leaching                 |
| 2004 | Development of the Infra-red technology with the Canadian National Research Institute              |
| 2005 | Development of the Master Rolls concept                                                            |
| 2006 | Installation of a third automated production line                                                  |
| 2007 | Integration of a pin hole detector                                                                 |
| 2008 | Solmax historical contract signature with Chilean leader (7 Million sm)                            |

### 4. PARTIAL LIST OF PVC PROJECTS REALIZED RECENTLY



**Project Name:**

Application:

Location:

Date of completion:

Facility owner:

Installer:

Contact:

Material Thickness:

Surface Area

**SQM S.A.**

Evaporation pond

Desert de Atacama, Chile

2008 - March 2009

SQM S.A.

Teypa

Waldo Rojas

PVC 30 mil

7 000 000 sm / 75 385 000 sf



**Project Name:**

**Minera Escondida**

Application:

Tailing dam

Location:

Desert de Atacama, Chile

Date of completion:

April 2007

Facility owner:

Minera Escondida

Installer:

Minera Escondida

Material Thickness:

PVC 30 mil

Surface Area

3 250 000 sm / 34 500 000 sf

**Project Name:**

**Barnesville WWTP**

Application:

Water Waste Treatment

Location:

Barnesville, MN

Date of completion:

Oct-Nov 2006

Facility owner:

City of Barnesville

Installer:

Simbeck & Associates

Contact:

Brian Simbeck

Material Thickness:

PVC 30 mil

Surface Area

212 275 sm / 2 284 892 sf



**Project Name:**

**Jamalco**

Application:

Dry residue area

Location:

Clarendon, Jamaica

Date of completion:

December 2007

Facility owner:

Alcoa

Installer:

Soluciones Ambientales

Contact:

Marco Araujo

Material Thickness:

PVC 30 mil

Surface Area

1 300 000 sm / 14 000 000 sf

**Project Name:**

**Rosebud Mining**

Location:

Penfield, PA

Date of completion:

October 2006

Facility owner:

Rosebud Mining

Installer:

Frank Roberts & Sons

Contact:

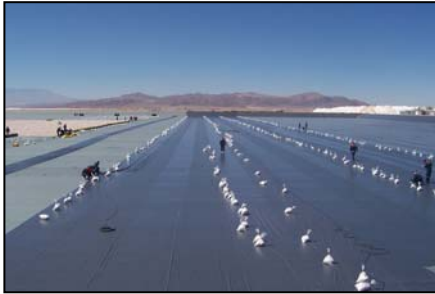
Mike Roberts

Material Thickness:

PVC 30 mil

Surface Area

40 000 sm / 426 500 sf



**Project Name:**

Application:  
Location:  
Date of completion:  
Facility owner:  
Installer:  
Contact:  
Material Thickness:  
Surface Area

**SQM S.A.**

Evaporation pond  
Desert de Atacama, Chile  
March 2007  
SQM  
Teypa  
Waldo Rojas  
PVC 30 mil  
1 100 000 sm / 11 840 300 sf

**Project Name:**

Application:  
Location:  
Date of completion:  
Facility owner:  
Contact:  
Telephone:  
Installer:  
Contact:  
Material Thickness:  
Surface Area

**Eagle Bend Wastewater Treatment Project**

Waste Water Treatment Plant  
Eagle Bend, MN  
November 2006  
Town of Eagle Bend  
Kevin Hess  
(218) 738-5982  
Simbeck & Associates  
JoAnne Simbeck  
PVC 30 mil  
130 000 sm / 1 393 372 sf

**Project Name:**

Application:  
Location:  
Date of completion:  
Owner:  
Client:  
Contact:  
Material Thickness:  
Surface Area

**Home Depot**

Decorative pond  
USA  
Year 2006  
Home Depot  
Beckett  
Joanne Tran  
PVC 20 mil Fish Grade  
1 100 100 sm / 11 850 000 sf



## **5. QUALITY CONTROL (QC) PROCEDURES OF ROLL GOODS**

All delivered roll goods shall be visually inspected by the quality control technician for damage during shipment and handling and for proper labeling. The quality control manager shall verify that all roll goods meet or exceed the project specifications by reviewing the manufacturer's quality control test results, test methods and frequencies (see "Manufacturer's Certification Results" in Appendix A). Any roll deemed unacceptable shall be separated and identified by a nonconformity tag in order to have it removed from production until satisfactory remedial actions have been taken.

Each production order shall be fully documented by the lot and all roll numbers used for the specific panel. A record drawing for each panel shall also be prepared indicating the location and dimension of each roll, or parts thereof, used to fabricate the given panel.

## **6. PVC FACTORY FABRICATION**

Prior to any production, all work areas shall be cleaned and kept free of any obstacles liable to cause damage or injure personnel. The production manager - and, if necessary, the quality control manager - shall hold a pre-production meeting with the production personnel in order to establish and convey all project specific requirements such as minimum seam strength and packaging procedures.

## **7. DIELECTRIC WELDER QUALITY CONTROL PROCEDURES**

### **7.1 CALIBRATION**

Prior to any assembly or calibration procedure, the welding technicians shall verify that all material surfaces to be welded are clean and dry. If necessary, for conditioning purposes, the roll shall be kept inside the facility for at least one work shift prior to welding. A sample piece of material from the roll to be seamed shall be cut and kept for calibration purposes.

Calibration procedures shall be performed following any production halt: at the start of every shift, after every break and prior to staff or material change. Calibration procedures shall also be performed following any event causing temporary production halt such as power failure, over-heating, etc...

The QC technician shall perform a welding test on a sample piece of material, approximately 8" X 48" (200mm x 1.2 meter), from which 10 test specimens shall be die-cut. Five peel tests and five shear tests shall be performed by the QC technician on a calibrated tensiometer. Peel and shear specimens shall be alternated when cut from the seam sample.

A peel test is conducted by submitting a one inch-wide (25mm) strip of seam (specimen) to a tensile force on a calibrated tensiometer, trying to "peel" or open the seam (see figure 1). A shear test is similar, but the tension is applied in the plane of the seam (see figure 2).

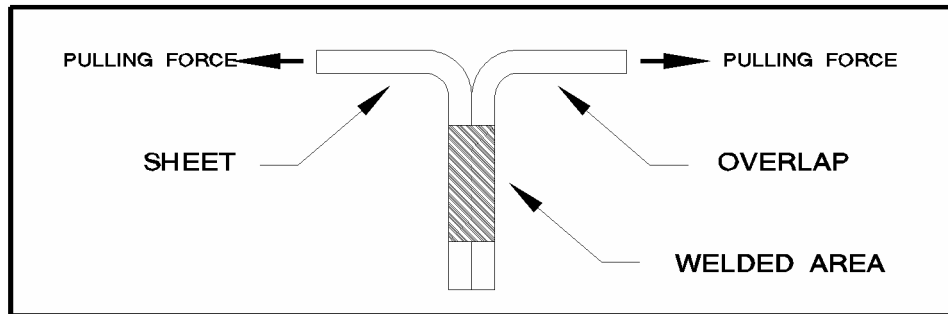


Figure 1 - PEEL TEST

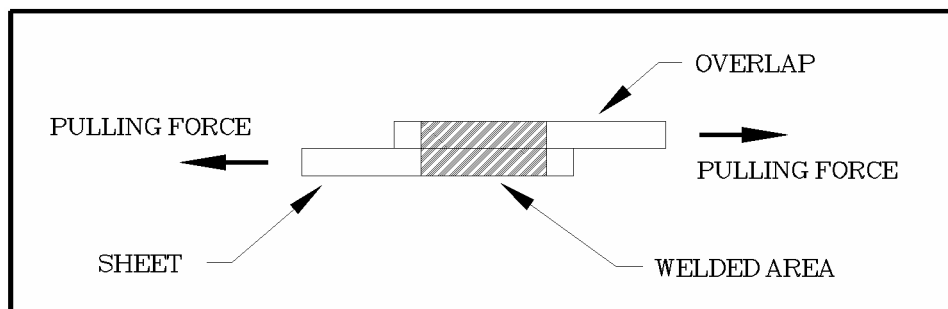


Figure 2 - SHEAR TEST

Peak values shall be recorded along with the locus of break (see "US-EPA Classification for types of break" in Appendix C). The QC technician shall verify that all calibration test results meet or exceed the project requirements for both peel and shear strength (see table 1 for typical peel and shear testing results).

Due to the lengthy testing process involved, welding may commence prior to the completion of all test results to prevent the welding equipment from excessive cooling. After testing 5 out of the 10 specimens, the QC technician may authorize welding to start if all results from those specimens meet the specified values.

## 7.2 DESTRUCTIVE TESTING (only upon request)



Destructive testing is performed at a frequency of 1 per 3000 linear feet (910 meters) of seaming, but not less than once per panel. On each sample, the same procedures described for calibration are followed, i.e. 5 specimens are tested for peel strength and 5 for shear strength. The QC technician shall verify that all destructive test results meet or exceed the project specific requirements (as shown in table 1 next page).

**Table 1 - Typical peel and shear strength values**

| <b>FACTORY SEAMS</b> |                           |                           |                               |                           |
|----------------------|---------------------------|---------------------------|-------------------------------|---------------------------|
|                      | <i><b>PEEL TEST</b></i>   |                           | <i><b>SHEAR TEST</b></i>      |                           |
| <b>MATERIAL</b>      | <b>STRENGTH<br/>(ppi)</b> | <b>BREAK<br/>(US-EPA)</b> | <b>STRENGTH<br/>(Lb./in.)</b> | <b>BREAK<br/>(US-EPA)</b> |
|                      | <b>Minimum</b>            |                           | <b>Minimum</b>                |                           |
| <b>Solmax 220</b>    | 12.5                      | FTB or<br>NON-FTB         | 38.4                          | FTB                       |
| <b>Solmax 230</b>    | 15.0                      | FTB or<br>NON-FTB         | 58.4                          | FTB                       |
| <b>Solmax 240</b>    | 15.0                      | FTB or<br>NON-FTB         | 79.8                          | FTB                       |
| <b>Solmax 250</b>    | 15.0                      | FTB or<br>NON-FTB         | 97.0                          | FTB                       |
| <b>Solmax 260</b>    | 15.0                      | FTB or<br>NON-FTB         | 116.0                         | FTB                       |

**NOTE:** For shear test, all specimens shall denote “brk” or “se” type locus of break as illustrated on the “single-track geomembrane weld” chart. . Values are as per PGI 1103

### 7.3 VISUAL INSPECTION AND REPAIR PROCEDURES

At all times, all welding personnel shall pay special attention to the integrity of the panel. Any suspected damage shall be reported immediately to the quality control technician who will temporarily stop production and proceed with repair procedures. Repairs shall consist of hand welding a patch with a hot air gun and pressure roller, followed by a visual verification of the repair. The QC technician shall then identify the repaired area on the corresponding record drawing.

## **7.4 DOCUMENTATION**

All manufacturer's certification results and in-house QC test results, along with the rolls used and the record drawings shall be enclosed in the final report (MF-CQ-31). Quality control test results shall be documented by the QC technician with the following information:

- Name of project
- Test number
- Weld number
- Date and time
- Power of the welding equipment
- Welding time
- Shear results
- Peel results
- Locus of break
- Name of QC technician
- Name of welding technician

This final report shall then be archived for a minimum period of 10 years. A copy shall be made available to the client, if requested.

## **7.5 SPECIMEN SAMPLES**

All specimen samples and an unused portion of the roll,  $\pm 6$  inches ( $\pm 150$ mm), shall be clearly identified with their corresponding test number and archived for a minimum of 10 years, unless otherwise specified. All specimen samples and unused portions shall be made available to the client upon request.

## **8. PANEL AND ROLL IDENTIFICATION**

Each panel shall be clearly identified with its corresponding number. Furthermore, each strip of material welded together to form the panel is also identified by its respective roll number. All unused portions of roll goods must be clearly identified for storage and further use.

## 9. PACKAGING

Each pallet can contain more than 1 panel and shall be packaged in a protective geotextile in order to prevent damage from shipping and handling. Special attention shall be given to all pallets for nails and chipped planks. In no event shall the panel rest directly on the wooden pallet; a cushion material must always be used between the pallet and the geomembrane panel. Each pallet shall be properly labeled with its corresponding project name, type of material, panel number and dimensions.



This certifies that

**Solmax International Inc.**

is a member of

**PVC Geomembrane Institute**

in good standing with all rights  
and privileges pertaining thereof.





# SGS

Certificate CA06/3886

The management system of  
Le système de gestion de

## Solmax International Inc.

2801, boul. Marie-Victorin,  
Varenes, Québec, J3X 1P7, Canada

has been assessed and certified as meeting the requirements of:  
a été évalué et enregistré selon les exigences de la norme :

### ISO 14001:2004

The scope of registration is as follows:  
La portée d'enregistrement est présentée ci-dessous:

**Fabrication de géomembranes et cordons d'extrusion de  
polyéthylène et assemblage de géomembranes PVC.  
Polyethylene geomembranes and extrusion rod manufacturing  
and PVC geomembrane prefabrication.**

Further clarifications regarding the scope of this certificate and the applicability of  
ISO 14001:2004 requirements may be obtained by consulting the organization.  
Des éclaircissements supplémentaires concernant la portée à ce certificat ainsi que l'applicabilité des  
exigences de la norme selon ISO 14001:2004 peuvent être obtenus en consultant l'organisme.

This certificate is valid from 20 July 2006 until 19 July 2009

Ce Certificat est valide du 20 juillet 2006 au 19 juillet 2009

Issue 1

Édition 1

Signed for and on behalf of SGS Systems & Services Certification Canada Inc  
Document signé pour et au nom de SGS Certification de Systèmes & Services Canada Inc



Managing Director

SGS Systems & Services Certification Canada Inc  
SGS Certification de Systèmes & Services Canada Inc  
6275 Northam Drive, Unit 2, Mississauga, Ontario, L4V 1Y8 Canada  
t (905)676-9595 t 1-800-636-0847 f (905)676-9519 [www.sgs.com](http://www.sgs.com)

SGS EMS 04 0105

Page 1 of 1







Certificate CA02/2694

The management system of  
Le système de gestion de

## Solmax International Inc.

2801, boul. Marie-Victorin  
Varenes, Québec, J3X 1P7, Canada

has been assessed and certified as meeting the requirements of:  
a été évalué et enregistré selon les exigences de la norme :

### ISO 9001:2000

The scope of registration is as follows:  
La portée d'enregistrement est présentée ci-dessous:

**Fabrication de géomembranes et cordons d'extrusion de polyéthylène  
et assemblage de géomembranes PVC.  
Polyethylene geomembrane and extrusion rod manufacturing and PVC  
geomembrane pre-fabrication.**

Further clarifications regarding the scope of this certificate and the applicability of  
ISO 9001:2000 requirements may be obtained by consulting the organization.  
Des éclaircissements supplémentaires concernant la portée de ce certificat ainsi que l'applicabilité des  
exigences de la norme selon ISO 9001:2000 peuvent être obtenus en consultant l'organisme.

This certificate is valid from 28 April 2008 until 27 April 2011

Ce certificat est valide du 28 avril 2008 au 27 avril 2011

Issue 3. Certified since February 2002

Édition 3. Enregistrée depuis février 2002

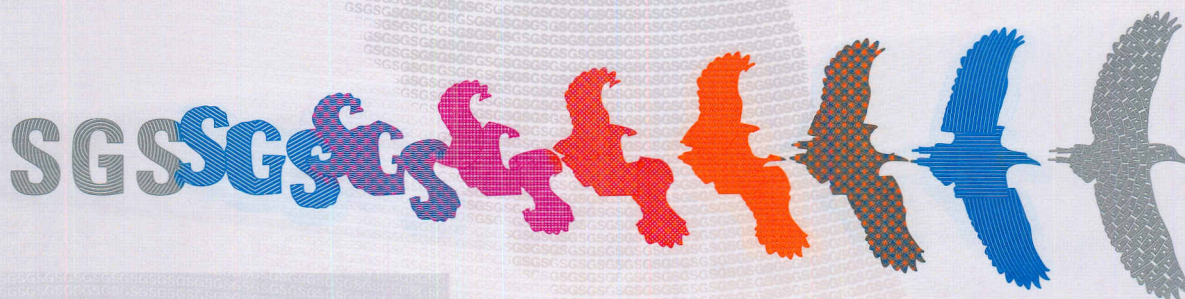
Signed for and on behalf of SGS Systems & Services Certification Canada Inc  
Document signé pour et au nom de SGS Certification de Systèmes & Services Canada Inc

Director Accreditation, North America

SGS Systems & Services Certification Canada Inc  
SGS Certification de Systèmes & Services Canada Inc  
201 Route 17 North, Rutherford, NJ 07070  
t 201-508-3000 t 1-800-747-9047 f 201-935-4555 www.sgs.com

SGS 9001-2 01 0303

Page 1 of 1





# terrafix<sup>®</sup>

## environmental U.S.A. inc.

---

P.O. Box 1226, 770 Main Street, Lewiston, Maine 04240 U.S.A. Tel: (207) 786-6808 Fax: (207) 786-6835

### QUALITY CONTROL MANUAL

#### *IMPORTANT NOTE*

The Terrafix Quality Control Manual is intended as a guideline only for geomembrane installation. This manual does not supercede the project specific specification.

#### *INTRODUCTION*

This manual addresses the Quality Control Program developed and utilized by Terrafix Environmental U.S.A. Inc. installation personnel to assure the quality of workmanship and the installation integrity of geomembranes. Terrafix Inc. recognizes that careful and specific documentation of the installation is required to substantiate this Quality Control Program.

#### *GEOMEMBRANE INSTALLATION*

##### **2.1 SUBGRADE SURFACE**

- 2.1.1** The general and/or earthwork contractor shall be responsible for preparing and maintaining the subgrade in a condition suitable for installation of the liner unless specifically agreed otherwise.
- 2.1.2** Surfaces to be lined shall be smooth and free of debris, roots, and angular or sharp rocks larger than three quarter (3/4) inches/9mm in diameter to a depth of four (4) inches/98mm. All fill shall consist of well-graded material free of organic, trash, clay balls or other damaging matter. No sharp edged stones, stones larger than one (1) inch/24.5mm in diameter or hard objects shall be allowed within the top four (4) inches/100mm of the subgrade. The surface shall be compacted in accordance with design specifications but in no event below the minimum required to provide a firm unyielding foundation sufficient to permit the movement of vehicles and welding equipment over the subgrade without causing rutting or other damaging effects. The subgrade shall have no sudden sharp or abrupt changes in grade.
- 2.1.3** The General and/or Earthwork Contractor shall protect the subgrade from desiccation, flooding and freezing, protection, if required, may consist of a thin plastic protective cover (or other material as approved by the engineer) installed over the completed subgrade until such time as the placement of geomembrane liner begins.

Subgrades found to have desiccation cracks greater than 1/2 inch/12.3mm in width or depth, or which exhibit swelling, heaving or other similar conditions shall be replaced or reworked by the general and/or earthwork contractor to remove these defects.

- 2.1.4** **Surface Acceptance:** Upon request, Terrafix Inc., will provide the Owner's and Contractor's Representatives with a written acceptance of the surface to be lined. This acceptance will be limited to an amount of area that Terrafix Inc. is capable of lining during a particular work shift. Subsequent repairs to the subgrade and the surface shall remain the responsibility of the earthwork contractor.

##### **2.2 CREST ANCHORAGE SYSTEM**

- 2.2.1** The anchor trench shall be excavated by the general and/or the earthwork contractor to lines and widths shown on the design drawings prior to geomembrane placement.
- 2.2.2** Anchor trenches excavated in clay soils susceptible to desiccation cracks should be excavated only the distance required for that days liner placement to minimize the potential of desiccation cracking of the clay soils.
- 2.2.3** Corners in the anchor trench shall be slightly rounded where the geomembrane adjoins the trench to minimize sharp bends in the geomembrane.

## **2.3 PREPARATION FOR GEOMEMBRANE DEPLOYMENT**

- 2.3.1 Panel Layout:** Prior to commencement of liner deployment, layout drawings shall be produced to indicate the panel configuration and location of seams for the project.
- 2.3.2 Identification:** Each panel used for the installation shall be given an numeric or alpha-number identifier consistent with the layout drawing. This identification number shall be related to a manufacturing roll number that identifies the resin type, batch number, and date of manufacture.

## **2.4 FIELD PANEL PLACEMENT**

- 2.4.1 Location:** Terrafix Inc. will attempt to install field panels at the location indicated on the layout drawing. If the panels are deployed in a location other than that indicated on the layout drawings, the revised location shall be noted in the field on an as-built drawing which will be modified at the completion of the project to reflect actual panel locations.
- 2.4.2 Weather Conditions:** Geomembrane deployment shall not be done during any precipitation, in the presence of excessive moisture (ie. fog, dew), in an area of standing water, or during high winds.

## **2.5 METHOD OF DEPLOYMENT**

- 2.5.1** The method and equipment used to deploy the panels must not damage the geomembrane or the supporting subgrade surface.
- 2.5.2** No personnel working on the geomembrane will smoke, wear shoes that can damage the geomembrane, or engage in actions which could result in damage to the geomembrane.
- 2.5.3** Adequate temporary loading and/or anchoring, (ie. sandbags, tires), which will not damage the geomembrane, will be placed to prevent uplift of the geomembrane by wind.
- 2.5.4** The geomembrane will be deployed in a manner to minimize wrinkles.
- 2.5.5** Any damage to a panel of geomembrane will be repaired in accordance with paragraph 4.3. Any area of a panel seriously damaged (torn, twisted, or crimped) will be marked, cut out, and removed from the work area with resulting seaming and/or repairs performed in accordance with Paragraph 4.3 of this document.

## **2.6 FIELD SEAMING**

### **2.6.1 General Requirements:**

- 2.6.1.1 Layout:** In general seams shall be oriented parallel to the slope, ie., oriented along, not across the slope. Whenever possible, horizontal seams should be located not less than five (5) feet/1.52 m from the toe of the slope. Each seam made in the field shall be numbered in a manner that is compatible with the panel layout drawing for documentation of seam testing results.
- 2.6.1.2 Personnel:** All personnel performing seaming operations shall be trained in the operation of the specific seaming equipment being used and will qualify by successfully welding a test seam as described in Paragraph 2.5.3. The project foreman will provide direct supervision of all personnel seaming to verify proper welding procedures are followed.
- 2.6.1.3 Equipment:**

**Fusion Welding:** Fusion Welding consists of placing a heated wedge, mounted on a self propelled vehicular unit, between two (2) overlapped sheets such that the surface of both sheets are heated above the polyethylene's melting point. After being heated by the wedge, the overlapped panels pass through a set of preset pressure wheels which compress the two (2) panels together so that a continuous homogenous fusion weld is formed. The fusion welder is equipped with a temperature readout device which continuously monitors the temperature of the wedge.

**Extrusion Fillet Welding:** Extrusion fillet welding consists of introducing a ribbon of molten resin along the edge of the seam overlap of the two (2) sheets to be welded. The molten polymer causes some of the material of each sheet to be liquified resulting in a homogeneous bond between the molten weld bead and the surfaces of the sheets. The extrusion welder is equipped with gauges giving the temperature at the nozzle.

- 2.6.1.4 Weather Conditions:** Terrafix Inc., relies on the experience of the project Superintendent and the results of test seams to determine seaming restrictions by weather. Many factors, such as ambient temperature, humidity, wind, sunshine, etc., can effect the integrity of field seams and must be taken into account when deciding whether or not seaming should proceed. Test seams, as described in Paragraph 2.5.3. are required prior to daily production seaming to determine if the weather conditions will effect Terrafix Inc., ability to produce quality seams. Additional non-destructive and destructive testing of productions seams substantiate the decision made by the Project Superintendent to seam on any given day.

**2.6.2 Seam Preparation:**

- 2.6.2.1 Fusion Welding:** Overlap the panels of Geomembrane approximately six (6) inches/150mm. Clean the seam area prior to seaming to assure the area is clean and free of moisture, dust, dirt, debris of any kind. No grinding is required for fusion welding.

Adjust the panels so that seams are aligned with the fewest possible number of wrinkles and "fishmouths".

A moveable protective layer may be used, at the discretion of the Terrafix Inc., Project Superintendent, directly below the overlap of geomembrane.

- 2.6.2.2 Extrusion Welding:** Overlap the panels of Geomembrane a minimum of four (4) inches/98mm. Temporarily bond the panels of Geomembrane to be welded, taking care not to damage the geomembrane.

Clean the seam area prior to seaming to assure the area is clean and free of moisture, dust, dirt and debris of any kind. Grind seam overlap prior to welding within one (1) hour of welding operation in a manner that does not damage the Geomembrane.

Purge the extruder prior to beginning the seam remove all heat-degraded extrudate from the barrel. Keep welding rod clean and minimize contact with the ground.

- 2.6.3 Test Seams:** Test seams shall be performed at the beginning of each seaming period and at least once each five (5) hours for each seaming apparatus used that day. Test seams shall be made on fragment pieces of the geomembrane liner and under the same conditions as the actual field installation.

- 2.6.3.1 Test Seam Length:** The test seam shall be at least three (3) feet/0.91m long and should be made by joining two (2) pieces of geomembrane at least 9 inches/220.5mm in width.

- 2.6.3.2 Sample Procedure:** Visually inspect the seam for squeeze out, footprint, pressure, and general appearance.

Two random samples one (1) inch/24.5mm wide shall be cut from the test seam. The specimens shall then be tested in peel using a field tensiometer and shall not fail in the seam. If a specimen fails the entire procedure shall be repeated.

If any of the second set of specimens fail, the seaming apparatus shall not be accepted and shall not be used for seaming until the deficiencies are corrected and a passing test seam is achieved.

After completion of the test the remaining portion of test seam can be discarded. Documentation of the test seams will be maintained listing seamer identification number, welder's name, temperature control setting and test results.

Passing test results records shall be maintained on Terrafix Inc. Form 1 (Pre-weld qualification testing) as enclosed.

- 2.6.3.3 General Seaming Procedures:** Seaming shall extend to the outside edge of panels to be placed in the anchor trench. While welding a seam, monitor and maintain the proper overlap. Inspect seam area to assure area is clean and free of moisture, dust, dirt, debris of any kind. Monitor temperature gauges to assure proper settings are maintained and that the

seaming apparatus is operating properly. Align wrinkles at the seam overlap to allow welding through the wrinkle.

Fishmouths or wrinkles at seam overlaps that cannot be welded through shall be cut along the ridge in order to achieve a flat overlap. The cut fishmouth or wrinkle shall be seamed. Any portion where the overlap is inadequate shall be patched with an oval or round patch of the same geomembrane extending a minimum of six (6) inches/147mm beyond the cut in all directions.

All cross/butt seams between two (2) rows of seamed panels shall be welded during the coolest time of the day to allow for contraction of the geomembrane.

All "T" joints shall have the overlap from the wedge welder seam trimmed back to allow an extrusion fillet weld. Then grind two (2) inches/49.5mm minimum on either side of the wedge welder seam and extrusion weld all of the area prepared by grinding.

### ***SEAM TESTING - GEOMEMBRANES***

#### **3.1 CONCEPT**

**3.1.1** Terrafix Inc. installation crews will non-destructively test all field seams over their full length using air pressure, vacuum or other approved test methods, to verify the continuity and integrity of the seams.

#### **3.2 AIR PRESSURE TESTING**

The welded seam created by Terrafix Inc's., fusion welding process is composed of two distinct welded seams separated by an un-welded channel approximately 3/8 of an inch/9mm wide. The presence of the un-welded channel between the two welded seams permits Terrafix Inc's., fusion seams to be tested by inflating the sealed channel with air to a predetermined pressure and observing the stability of the pressurized channel over time.

**3.2.1 Equipment for Air Testing:** An air pump (manual or motor driven) capable of generating and sustaining a pressure between 25 to 30 psi., a rubber hose with fittings and connections, a sharp hollow needle with a pressure gauge capable of reading and sustaining a pressure between 25 to 30 psi. (or other approved pressure feed device).

**3.2.2 Procedure for Air Testing:** Seal both ends of the seam to be tested. Insert needle or other approved pressure feed service into the sealed channel created by the fusion weld.

Inflate the test channel to a pressure between 25 to 30 psi, in accordance with the following schedule, close valve, and observe initial pressure after approximately 2 minutes.

#### **INITIAL PRESSURE SCHEDULE\***

| MATERIAL THICKNESS (MIL) | MINIMUM PRESSURE | MAXIMUM PRESSURE |
|--------------------------|------------------|------------------|
| 40                       | 25               | 30               |
| 60                       | 27               | 30               |
| 80                       | 30               | 30               |
| 100                      | 30               | 30               |

\* Initial pressure settings are read after a two minute "relaxing period". The purpose of this "relaxing period" is to permit the air temperature and pressure to stabilize.

Observe and record the air pressure five (5) minutes after "relaxing period" ends and initial pressure setting is used. If loss of pressure setting is used. If loss of pressure exceeds the following or if the pressure does not stabilize, locate faulty area and repair in accordance with Paragraph 4.3.

**MAXIMUM PERMISSIBLE PRESSURE DIFFERENTIAL  
AFTER 5 MINUTES**

| MATERIAL THICKNESS (MIL) | PRESSURE DIFFERENCE |
|--------------------------|---------------------|
| 40                       | 4                   |
| 60                       | 4                   |
| 80                       | 4                   |
| 100                      | 4                   |

At the conclusion of the pressure test the end of the seam opposite the pressure gauge will be cut to ensure that the seam is not blocked. If the seam is blocked then the test will have to be repeated after the blockage is corrected. Remove needle or other approved pressure feed device and seal resulting hole by extrusion welding. Record test results on Terrafix Inc. Form 3 (Seam Recording and Air Testing) as enclosed.

- 3.2.3 In the event of a Non-Complying Air Pressure Test:** Check seam end seals and retest seams. If non-compliance with specified maximum pressure differential reoccurs, cut one (1) inch/24.5mm samples from each end of the seam and additional samples at the distance specified in Paragraph 3.4.3.1. Perform destructive peel tests on the samples using the field tensiometer.

If all samples pass destructive testing remove the overlap left by the wedge welder and vacuum test the entire length of seam in accordance with Paragraph 3.3. If a leak is located by the vacuum test, repair by extrusion welding. Test the repair by vacuum testing. If no leak is discovered by vacuum testing, the seam will be considered complete. If one or more samples fail the peel tests, additional samples will be taken in accordance with Paragraph 3.4.3.

When two (2) passing samples are located, the seam between these two (2) locations will be considered non-complying. The overlap left by the wedge welder will be heat tacked in place along the entire length of seam and the entire length of seam will be extrusion welded. Test the entire length of the repaired seam by vacuum testing in accordance with Paragraph 3.3.

**3.3. VACUUM TESTING**

This test is used when the geometry of the weld makes air pressure testing impossible or impractical or when attempting to locate the precise location of a defect believed to exist after air pressure testing.

- 3.3.1 Equipment for Vacuum Testing:** Vacuum box assembly consisting of a rigid housing, a transparent viewing window, a soft neoprene gasket attached to the bottom, port hole or valve assembly and a vacuum gauge. Vacuum pump assembly equipped with a pressure controller and pipe connections, a rubber pressure/vacuum hose with fittings and connections and bucket and means to apply a soapy solution.

- 3.3.2 Procedure for Vacuum Testing:** Trim excess overlap from seam, if any. Turn on the vacuum pump to reduce the vacuum box to approximately 3 in. of mercury, ie., 3 psi gauge. Apply a generous amount of a solution of strong liquid detergent and water to the area to be tested.

Place the vacuum box over the area to be tested and apply sufficient downward pressure to "seat" the seal strip against the liner. Close the bleed valve and open the vacuum valve. Apply a minimum of 3 in. Hg vacuum to the area as indicated by the gauge on the vacuum box. Ensure that a leak tight seal is created.

For a period of not less than 30 seconds, examine the geomembrane through the viewing window for the presence of soap bubbles. If no bubbles appear after 30 seconds, close the vacuum valve and open the bleed valve, move the box over the next adjoining area with a minimum 3 in. overlap, and repeat the process.

- 3.3.3 Procedure for non-complying test:** Mark all areas where soap bubbles appear and repair the marked areas in accordance with Paragraph 4.3. Retest repaired areas.

### 3.4 DESTRUCTIVE TESTING

The procedure of destructive testing is to determine and evaluate seam strength. These tests require direct sampling and thus subsequent patching. Therefore, destructive testing should be held to a minimum to reduce the amount of repairs to the geomembrane.

**3.4.1 Procedure for Destructive Testing:** Destructive test samples shall be marked and cut out randomly at a minimum average frequency of one test location every 1000 feet/or 300m of seam length. Additional destructive tests may be taken in areas of contamination, offset welds, visible crystallinity or other potential cause of faulty welds. Field test five (5) coupons in peel and five (5) coupons in shear and at least four (4) out of the five (5) coupons must pass the tensile strength properties in both peel and shear. Minimum strength of field seams when tested in shear shall be 90 percent and in peel 60 percent of the unseamed liner.

**3.4.2 Sample Size:** The sample should be twelve (12) inches wide/305mm with a seam fourteen (14) inches/356mm long centered lengthwise in the sample. The sample may be increased in size to accommodate independent laboratory testing by the owner at the owner's request or by specific project specifications.

A one (1) inch/24.5mm sample shall be cut from each end of the test seam for field testing. The two one (1) inch/24.5mm samples shall be tested in the field in a tensiometer for peel. If any field sample fails to pass, it will be assumed the sample fails destructive testing. The procedure outlined in Paragraph 3.4.3. shall be followed to locate passing samples to send to the laboratory.

If the sample passes the field test, the remaining portion of the sample test strip shall be sent to Terrafix Inc. These samples will be held in inventory available for further evaluation if required.

**3.4.3 Procedure in the event of Destructive Test Failure:** Cut additional field samples for testing. In the case of a field production seam, the samples must lie a minimum of ten (10) feet/3m in each direction from the location of the failed sample. Perform a field test for peel strength. If these field samples pass, then laboratory samples can be cut and forwarded to a laboratory for full testing.

If the laboratory samples pass then reconstruct the seam between the two (2) passing sample locations. Heat tack the overlap along the length of the seam to be reconstructed and extrusion weld. Vacuum test the extrusion weld. If either of the samples fail then additional samples are taken in accordance with the above procedure until two (2) passing samples are found to establish the zone in which the seam should be reconstructed.

All passing seams must be bounded by two (2) locations from which samples passing laboratory destructive tests have been taken. In cases of reconstructed seams exceeding 150 feet/45m a destructive samples must be taken and pass destructive testing from within the zone in which the seam has been reconstructed. All destructive seam samples sent to Terrafix Inc's, office shall be numbered and recorded on Terrafix Inc. Form 2 (Destructive Seam Testing) as enclosed.

### 3.5 QUALITY ASSURANCE LABORATORY TESTING

The remaining destructive sample may be sent to a laboratory and will be tested in "Seam Strength" and "Peel Adhesive" [ASTM D6392 with specimen 0.5 inches wide tested at two (2) inches per/minute]. Five (5) specimens shall be tested for each test method with data recorded. Four (4) out of the five (5) specimens must pass and not have more than 10% Film Tear Bond for each test in order for the seam to be considered acceptable.

## *DEFECTS AND REPAIRS*

### 4.1 CONCEPT

**4.1.1** Terrafix Inc. Project Superintendent shall conduct a detailed walk through and visually check all seams and non-seam areas of the geomembrane for defects, holes, blisters, and signs of damage during installation. All other Terrafix Inc., installation personnel shall, at all times, be on the lookout for any damaged area. Damaged area shall be marked and repaired.

## 4.2 REPAIR PROCEDURES

Any portion of the geomembrane showing a flaw, or failing a destructive or non-destructive test shall be repaired. Several procedures exist for repair and the decision as to the appropriate repair procedure shall be made by Terrafix Inc. Project Superintendent.

Procedures available for repair:

- 4.2.1 **Patching:** Used to repair large holes, tears and destructive sample locations. All patches shall extend at least six (6) inches/147mm beyond the edges of the defect and all corners of patches shall be rounded.
- 4.2.3 **Grinding and welding:** Used to repair sections of extruded seams.
- 4.2.4 **Spot welding or seaming:** Used to repair small tears, pinholes or other minor localized flaws.
- 4.2.5 **Capping:** Used to repair lengths of failed extruded seams. Removal of a bad seam and replacement with a strip of new material seamed into place.
- 4.3 **Verification of Repairs:** Every repair shall be non-destructively tested using the methods set out in Paragraph 3.4. Repairs which pass the non-destructive test shall be deemed adequate. Large repairs may require destructive test. Repair test results shall be logged on Terrafix Inc. Form 4 (Repair Report) as enclosed.

*-End-*

## **PRE-WELD QUALIFICATION TESTING**

PROJECT: \_\_\_\_\_

QC TECHNICIAN: \_\_\_\_\_

SHEET \_\_\_\_ OF \_\_\_\_

[illegible]



## DESTRUCTIVE SEAM TESTING

PROJECT: \_\_\_\_\_

QC TECHNICIAN: \_\_\_\_\_

SHEET \_\_\_\_ OF \_\_\_\_

[illegible]

## SEAM RECORDING & AIR TEST

PROJECT: \_\_\_\_\_

QC TECHNICIAN: \_\_\_\_\_

SHEET \_\_\_\_ OF \_\_\_\_

[illegible]

TERRAFIX INC.

FORM 4

## REPAIR REPORT

PROJECT: \_\_\_\_\_

QC TECHNICIAN: \_\_\_\_\_

SHEET \_\_\_\_\_ OF \_\_\_\_\_

[illegible]

# terrafix<sup>®</sup>

## environmental U.S.A. inc.

---

P.O. Box 1226, 770 Main Street, Lewiston, Maine 04240 U.S.A. Tel: (207) 786-6808 Fax: (207) 786-6835

### **CERTIFICATE OF SUBGRADE ACCEPTANCE**

PROJECT: \_\_\_\_\_

DATE: \_\_\_\_\_

CLIENT: \_\_\_\_\_

TERRAFIX REP: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_

Terrafix Environmental U.S.A. Inc. hereby accepts the area(s) defined below as being suitable to receive  
\_\_\_\_\_. This acceptance applies only to the visible surface of the subgrade and is in no way  
applicable to the structural stability and overall suitability of the subgrade.

AREA CERTIFIED: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

COMMENTS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

# **terrafix<sup>®</sup>**

## **environmental U.S.A. inc.**

---

P.O. Box 1226, 770 Main Street, Lewiston, Maine 04240 U.S.A. Tel: (207) 786-6808 Fax: (207) 786-6835

### **SAFETY MANUAL**

#### ***THE FOLLOWING SAFE PRACTICES ARE LISTED FOR YOUR PROTECTION***

##### **INTRODUCTION**

We expect each one of you not only to **READ** these rules and regulations but to **ABIDE** by them in your work. Each operation presents its own problem and no two jobs are alike. However, by following these safety practices along with all of our client's safety regulations, you can help us in making each project a safe place of employment for yourself and your fellow workers.

Accidents can be avoided and, therefore, Terrafix insists that everyone works safely. Always use good judgment and common sense. Remember that no one profits from accidents. We are concerned about your safety, help **US** keep **YOU** safe!

Should you require any additional information regarding this pamphlet, please contact:

Blu Alexander, Construction Manager  
Terrafix Environmental U.S.A. Inc.  
(207) 786-6808 PH  
(207) 786-6835 FX

##### **SUPERVISORS RESPONSIBILITY**

1. Be responsible for the safety of the entire project under their charge including accident investigation and reporting.
2. Actively enforce all aspects of the Occupational Health & Safety Act, project specific safety concerns as well as those of the company Safety Policies.
3. Train and explain safety procedures and policies to their workers, particularly to new workers.
4. Advise their workers of potential or actual dangers including hazardous materials specific to the work place.
5. Ensure personal protective equipment is used by workers as needed to perform their work in a safe manner.
6. Ensure that all equipment including safety and protective equipment is in good operating condition and that any defective equipment is immediately tagged and removed for repair.
7. Cooperate fully with the Safety Coordinator, where applicable.
8. Report all accidents and incidents immediately to management. WCB form must be submitted within 2 days of accident to WCB to prevent a fine of \$300.00 for late reporting. Accidents can now be phoned in at **(800) 636-4292**.
9. Investigate thoroughly any accident or incident occurring in the work place and implement the remedial steps necessary to prevent a recurrence.
10. Promptly submit to management any Accident/injury Report for every medical aid and/or lost time injury.

##### **EMPLOYEES RESPONSIBILITY**

1. Perform their work with a safety first attitude.
2. Comply with the Occupational Health & Safety Act as well as this company's Safety Policy.
3. Immediately report any injury or accident, no matter how minor, to their supervisor.

4. Immediately report to their supervisor any condition, practice or hazard which may cause injury to a worker or damage to equipment.
5. Wear, user and properly maintain personal protective equipment wherever required by their supervisor.
6. Be accountable for their own safety and work in a manner so as not to endanger fellow workers.

### **GENERAL SAFE PRACTICES**

1. All employees shall follow safe procedures, render every aid to safe operation and report all unsafe conditions or practices immediately to his foreman or supervisor.
2. Our foremen and supervisors are instructed to insist on employees obeying rules and regulations in order to promote good safety practices for the protection of the employees as is necessary to the safe conduct of the work. They will take such action as is necessary to enforce these instructions.
3. Ask your foreman or supervisor if you do not know how or are in doubt as to the safe way of doing your job.
4. Ignorance of safety rules and practices is no excuse for their violation.
5. Help the new or inexperienced employee by pointing out potential hazards which may arise from electrical sources, gases, chemicals, radiation, heat, slip and fall, etc.
6. Employees are to be alert and report any deficiency in the way of defective tools, equipment, guards or protective devices immediately to the foreman or superintendent.
7. Careful investigation as to possible danger to other persons is necessary before beginning any operation.
8. Horseplay, gambling or fighting will not be tolerated.
9. Anyone known to be under the influence of intoxicating liquor shall not be allowed on the job while in that condition.
10. Intoxicating beverages, firearms or other weapons must not be brought to the job any time.
11. Illegal possession or use of narcotics and/or non-prescribed tranquilizers or pep pills on company premises or project sites are forbidden.
12. Operate only the equipment you are authorized to use.
13. Before doing any climbing, inspect the soles of your shoes and clean them of any slippery substance such as mud or oil.
14. Do not use carbon tetrachloride for any purpose. Carbon TET vapors can be fatal if inhaled.
15. Caution should be used in handling injurious or poisonous substances. Follow special instruction from authorized sources regarding this matter.
16. Unless it's an emergency, running is prohibited.
17. Transistor radios and walkman radios are not to be allowed, used, or carried by any Terrafix personnel while in the field.

### **HOUSEKEEPING**

1. Our working areas are to be kept free from all unnecessary debris and waste material.
2. All scrap is to be removed and deposited in proper containers. Keep all materials piled neatly.

3. Bolts, nuts, etc. should be kept in containers or removed from the work area when no longer needed. During bolting operations continuous policing of the area should be a regular procedure.
4. All tools and other equipment are to be returned to their proper place after use.
5. Special attention is to be given to the removal and disposal of oily rags, paint cans and any container that may have held flammable liquids.
6. Eliminate the slipping and falling hazards caused by oil and liquid spillage by immediately wiping or spreading an absorbing material on the area.
7. Walkways, scaffolds and stairways must be kept clear of welding cords, hoses, small tools and equipment.
8. Change rooms and rest rooms must be kept clean. Place lunch bags, papers, drinking cups and other refuse in the container provided for their disposal.

### **FOR YOUR PERSONAL PROTECTION**

1. Employees should wear suitable personal clothing for the type of work they will be performing.
2. Loose or frayed clothing, finger rings, dangling ties, etc. should not be worn around moving machinery or other sources of entanglement.
3. All site workers must wear approved safety footwear. Unless instructed otherwise by his supervisor.
4. Approved hard hats will be worn by all employees and authorized visitors at all field locations outside the office area. No "bump caps," "baseball bean caps," etc, are allowed.
5. Suitable goggles and/or face shields shall be worn when welding, grinding, buffing, sanding, cutting, chipping, handling acids and caustics, and while working in locations where there is a possibility of injury to eyes or face.
6. Employees are not allowed to ride on running boards, fenders, side rails, tops of vehicles, extend legs over the side of any truck bed or stand up in the bed of any truck or vehicle while machine is in motion.
7. Compressed air is not to be used for blowing dust from body parts or clothing. Never point an open air hose at other persons.
8. When lifting, use the large muscles of your legs rather than the small muscles of your back. Take a firm grip, secure a good footing, place the feet a comfortable distance apart, keep the load close, keep your back straight, bend your knees and lift with your legs.
9. If the load is too heavy, get help. Don't strain.
10. Use safety belts and life lines when working from high places, as required by federal, provincial, or local safety regulations.

### **MATERIAL HANDLING**

1. Remember - in lifting, the safe way is the best and easiest way. The back and stomach muscles are easily injured and they bear most of the strain if lifting is done incorrectly.
2. Never use ropes, chains, or slings that are defective. Make sure all loads are centered in slings before lifting and use extreme care in removing slings from piled stock.
3. Don't stand under loads.

4. Don't ride loads.
5. Stand clear of any taut cables and lifting devices.

### **ELECTRICAL**

1. When working in or on energized substations, transmission lines, power plants, etc., accident prevention rules, procedures and regulations of our client are to be followed by all Terrafix Environmental U.S.A. Inc. employees.
2. Never make repairs to electrical equipment unless you know the proper manner of doing the work.
3. No electrical work should be done "hot" which can be done "cold".
4. Always respect electricity! It takes very little electric current to kill. If the contact is good for only an instant, 110 volts may kill, and there have been many cases where voltage as low as 60 or 70 volts have been fatal.
5. Metal ladders shall not be used for electrical work or where they may contact electrical conductors.

### **LADDERS & SCAFFOLDS**

1. Ladders are to be placed with care. The bottom of the ladder should be away from the wall and never more than one-fourth of the perpendicular height of the ladder.
2. A ladder should not be placed at a blind corner or a doorway where it could be displaced. If it is necessary to use a ladder in such places, the area is to be blocked off.
3. Ladders are not to be placed upon unstable objects such as boxes, loose lumber, etc. This is usually done to obtain additional height. A longer ladder should be obtained for this purpose.
4. Don't use a step ladder as a straight ladder.
5. Metal ladders are not to be used around electrical wiring or while working on or near electrical equipment.
6. Face the ladder when ascending or descending and use both hands.
7. Inspect the scaffolds and ladders on which you are to work to make certain they are safe and that they remain safe.
8. Any damage to scaffolds, false work or other supporting structures must be reported to the foreman.
9. Scaffold planks are to be carefully selected, tested and made secure to prevent slipping by using cleats, toeing or wiring.
10. Suitable handrails for personnel protection should be installed on all scaffolds.
11. As far as safety is concerned, there is no such thing as a "temporary scaffold". Build all scaffolds with safety in mind as the "temporary scaffold" many times is used for a longer time than originally anticipated.
12. Never overload a scaffold. Scaffolds should be designed and built to take the maximum material load that may be placed on them as well as the weight of the workmen.
13. Damaged or broken ladders shall be tagged, "Do Not Use" until the ladder has been repaired and tag removed.
14. Do not work from either of the top two rungs of any portable ladder.
15. All scaffolds must comply with the Provincial Regulations.
16. The ladder must extend at least one meter above the platform or excavation or resting surface.



## **HAND TOOLS**

1. Your job can be made safer and easier if (a) the right tool is selected for the job; (b) used in the right way; (c) properly maintained; (d) properly stored when not in use.
2. All portable electric hand tools should be grounded.
3. Inspect cords of electric tools regularly. Don't lay the cord on oily or chemically saturated floor. Never pull on the cord when it is kinked or pinched. Don't lift or lower the tool with the cord.
4. Don't use defective tools. Turn them in for repair or exchange.
5. All sharp edge tools should be kept sharp. They are safer and more efficient than dull ones.
6. Don't carry sharp or pointed tools in your pocket.
7. Tools are not to be left lying in elevated places, in walkways, aisles or stairways.

## **EQUIPMENT**

1. A piece of equipment is only as safe as the operator and the mechanic. Our equipment is built for safe, economical operation and long life, yet each piece is subject to intelligent use and maintenance.
2. Only experienced men are allowed to operate power equipment. Before being allowed to operate machinery or equipment the employee must prove by actual demonstration that he understands the operation.
3. Do not operate equipment in an unsafe condition. All operators should make a careful inspection of their equipment at the start of each shift.
4. Cleaning, oiling or repairing is not to be done on equipment while it is in operation unless special provisions have been made to do it safely with specific instructions from the supervisor and the complete knowledge of the operator.

## **FIRE PREVENTION**

1. All employees must take every precaution to prevent fire. Do not tamper with fire fighting equipment. Observe "No Smoking" rules. Use extra care when and where smoking is permitted.
2. The use of gasoline or other highly volatile material for starting fires is prohibited.
3. Gasoline is not to be used for cleaning purposes.
4. Appropriate closed containers are to be used for gasoline, kerosene, acids and similar fluids. Containers are to be plainly marked to indicate the character of the contents. The fuel storage area is a "No Smoking" area.
5. Ground all temporary gasoline storage tanks used in construction.
6. In case of fire: Keep calm. Report the fire immediately, giving the location, your name and telephone extension if applicable. Consider first the safety of all personnel, then direct attention to the saving of property.
7. Know where the fire extinguisher are located and how to operate them. After a fire extinguisher has been used, notify your foreman whose duty is to see that proper replacement is made promptly.

## **JOB INJURIES & SICKNESS**

1. All injuries, no matter how slight they may seem, must be reported to the proper representatives of Terrafox Environmental Technology Inc. (your foreman or office manager or preferably the first aid department) so that

arrangements can be made for medical or first aid treatment. If you must leave the job because of illness or injury (either industrial or nonindustrial) be sure to notify your supervisor before leaving.

2. Do not move an injured person unless it is necessary to do so in order to prevent further injury. Keep the injured as comfortable as possible and without delay send for the nurse, first aid attendant or other medical aid.
3. Haste in giving first aid is sometimes harmful. There are two instances when speed is necessary; (a) severe bleeding (b) artificial respiration.
4. Do not attempt to remove foreign particles from your eye or body or from the eye or body of others. Get qualified treatment from First Aid.
5. No one will knowingly be permitted or required to work while his ability or alertness is so impaired by fatigue, illness or other causes that it might necessarily expose himself or others to injury.

### **SITE TRANSPORT RULES**

1. No person shall drive a Site Vehicle unless he has a valid Driver's License and he is authorized to do so.
2. No vehicle shall be used during the hours of darkness unless it has suitable lights or the area is floodlit.
3. No driver shall alight from a vehicle unless he has ensured that it cannot accidentally move.
4. It is an offence to drive any Site Vehicles without due care and attention.
5. All drivers must inspect their vehicles at least once a day and any defects must be reported to the person in charge.
6. No vehicle shall be loaded in such a manner or to such an extent as to interfere with the safe driving and operation of the vehicle.
7. These rules and any signs erected around the site must be adhered to at all times.
8. No passengers are to be carried unless they are seated and in a secured position with no parts of their body protruding the vehicle.

*-End-*

# terrafix<sup>®</sup>

## environmental U.S.A. inc.

FORM 13

P.O. Box 1226, 770 Main Street, Lewiston, Maine 04240 U.S.A. Tel: (207) 786-6808 Fax: (207) 786-6835

### WEEKLY SAFETY MEETING

PROJECT: \_\_\_\_\_  
SUPERVISOR: \_\_\_\_\_  
DATE: \_\_\_\_\_

**GENERAL CONSTRUCTION SAFETY:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**PERSONAL PROTECTION:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**MATERIALS HANDLING (KNIFES):** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**ELECTRICAL/EQUIPMENT:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**SITE TRANSPORT RULES:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**FIRE PREVENTION:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**HOUSEKEEPING:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

ATTENDED BY

|       |       |       |
|-------|-------|-------|
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |



# TECHNICAL DATA SHEET

## Geomembrane PVC Smooth

Solmax International Inc., 2801 Boul. Marie-Victorin, Varennes, Qc, Canada, J3X 1P7  
Tel.: (450) 929-1234 Fax: (450) 929-2550 www.solmax.com

| PROPERTY                             | TEST METHOD †††† | UNIT<br>Imperial | Solmax 240-1000<br>PVC-40-000 |
|--------------------------------------|------------------|------------------|-------------------------------|
| CERTIFIED PROPERTIES †               |                  |                  |                               |
| Thickness (Nominal $\pm 5\%$ )       | ASTM D-5199      | mils             | 40                            |
| Tensile Properties (min. MD & TD)    | ASTM D-882       |                  |                               |
| Strength at Break                    |                  | ppi              | 97                            |
| Elongation at Break                  |                  | %                | 430                           |
| Modulus at 100%                      |                  | ppi              | 40                            |
| Tear Resistance (min. avg.)          | ASTM D-1004      | lbs              | 10                            |
| Dimensional Stability                | ASTM D-1204      | %                | 3                             |
| Weight                               | -                | lbs/sf           | 0.273                         |
| Low Temperature Impact (pass)        | ASTM D-1790      | °F               | -20                           |
| INDEX PROPERTIES ††                  |                  |                  |                               |
| Specific gravity (typical)           | ASTM D-792       | g/cc             | 1.20                          |
| Water Extraction (max. loss)         | ASTM D-1239      | %                | 0.20                          |
| Average Plasticizer Molecular Weight | ASTM D-2124      |                  | 400                           |
| Volatile Loss (max. loss)            | ASTM D-1203      | %                | 0.5                           |
| Soil Burial (max. chg.)              | ASTM G-160       |                  |                               |
| Break Strength                       |                  | %                | 5                             |
| Elongation at Break                  |                  | %                | 20                            |
| Modulus at 100%                      |                  | %                | 20                            |
| Hydrostatic Resistance (min.)        | ASTM D-751       | psi              | 120                           |
| GENERAL INFORMATION †††              |                  |                  |                               |
| Color                                | -                |                  | Grey (Gris)                   |
| Surface                              | -                |                  | Smooth (Lisse)                |
| Panel Width Multiples                | -                | in               | 85                            |
| FACTORY SEAM STRENGTHS               |                  |                  |                               |
| Shear Strength (min.)                | ASTM D-882       | ppi              | 77.6                          |
| Peel Strength (min.)                 | ASTM D-882       | ppi              | 15                            |

### NOTES

†. Certified properties are tested once per lot, or once every 40,000 lbs of material (18,000 kg), whichever is more frequent. Tensile properties : 1" wide samples, 95 psi line pressure and 360 kgf (809 lbf) clamping force.

††. Index properties are tested once per formulation. A certified statement of the test results for the formulation is to be made available to the customer on request.

†††. Custom panel sizes are available and panel dimensions may vary  $\pm 1\%$ .

††††. Modifications or further details of test are described in PGI 1104 Appendix B or ASTM D 7176 standard.

\* The information contained herein is provided for reference purposes only and is not intended as a warranty of guarantee. Final determination of suitability for use contemplated is the sole responsibility of the user. SOLMAX assumes no liability in connection with the use of this information.

# terrafix<sup>®</sup> environmental U.S.A. inc.

P.O. Box 367, 34 Court Street Auburn, Maine 04212 U.S.A. Tel: (207) 786-6808 Fax: (207) 786-6835

## ***DON TORGERSON ~ SUPERVISOR/MASTER SEAMER INSTALLATION REFERENCES***

Don previously worked for Geopacific Environmental Inc.

| YEAR | PROJECT                 | PRODUCT                              | QUANTITY                                           | LOCATION         |
|------|-------------------------|--------------------------------------|----------------------------------------------------|------------------|
| 2001 | LANDFILL CLOSURE        | 40 MIL LLDTPPE                       | 700,000 FT <sup>2</sup>                            | MONTPELIER, VT   |
| 2001 | LANDFILL CLOSURE        | 40 MIL LLDTPPE                       | 150,000 FT <sup>2</sup>                            | NEWBURY, VT      |
| 2001 | LANDFILL CLOSURE        | 60 MIL HDTPE                         | 160,000 FT <sup>2</sup>                            | PLATTSBURGH, NY  |
| 2001 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 400,000 FT <sup>2</sup>                            | CLAREMONT, NH    |
| 2001 | LANDFILL EXPANSION      | 100 MIL HDTPE                        | 500,000 FT <sup>2</sup>                            | WILLIAMSPORT, PA |
| 2002 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 1,800,000 FT <sup>2</sup>                          | WOBURN, MA       |
| 2002 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 450,000 FT <sup>2</sup>                            | AYER, MA         |
| 2002 | LANDFILL CLOSURE        | 40 MIL LLDTPPE                       | 200,000 FT <sup>2</sup>                            | PLYMOUTH, NH     |
| 2002 | WWTP LAGOON             | 40 MIL HDTPE                         | 120,000 FT <sup>2</sup>                            | BRENTWOOD, NH    |
| 2003 | LANDFILL CLOSURE        | 40 MIL LLDTPPE<br>60 MIL HDPE (COND) | 500,000 FT <sup>2</sup><br>100,000 FT <sup>2</sup> | JAMESTOWN, NY    |
| 2003 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 100,000 FT <sup>2</sup>                            | FITCHBURG, MA    |
| 2003 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 400,000 FT <sup>2</sup>                            | BROCKTON, MA     |
| 2003 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 300,000 FT <sup>2</sup>                            | NASHUA, NH       |
| 2003 | LANDFILL CLOSURE (PH 1) | 40 MIL HDTPE                         | 350,000 FT <sup>2</sup>                            | READING, MA      |
| 2004 | LANDFILL CLOSURE (PH 2) | 40 MIL HDTPE                         | 800,000 FT <sup>2</sup>                            | READING, MA      |
| 2004 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 650,000 FT <sup>2</sup>                            | LEBANON, NH      |
| 2004 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 1,150,000 FT <sup>2</sup>                          | STANLEY, NY      |
| 2005 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 400,000 FT <sup>2</sup>                            | SOUTHBRIDGE, MA  |
| 2005 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 700,000 FT <sup>2</sup>                            | NEWPORT, VT      |
| 2005 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 700,000 FT <sup>2</sup>                            | ORLEANS, MA      |
| 2005 | LANDFILL CLOSURE        | 40 MIL LLDTPPE                       | 300,000 FT <sup>2</sup>                            | WELLFLEET, MA    |
| 2006 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 500,000 FT <sup>2</sup>                            | PLATTSBURGH, NY  |
| 2006 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 350,000 FT <sup>2</sup>                            | BETHLEHEM, NH    |

|      |                                 |                |                           |                 |
|------|---------------------------------|----------------|---------------------------|-----------------|
| 2006 | LANDFILL CLOSURE                | 40 MIL HDTPE   | 220,000 FT <sup>2</sup>   | STOUGHTON, MA   |
| 2007 | LANDFILL CLOSURE                | 40 MIL LLDTPPE | 250,000 FT <sup>2</sup>   | AUBURN, NY      |
| 2007 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 400,000 FT <sup>2</sup>   | SOUTHBRIDGE, MA |
| 2007 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 800,000 FT <sup>2</sup>   | STANLEY, NY     |
| 2007 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 650,000 FT <sup>2</sup>   | NEWPORT, VT     |
| 2007 | LANDFILL CLOSURE                | 40 MIL HDTPE   | 300,000 FT <sup>2</sup>   | COLEBROOK, NH   |
| 2008 | LANDFILL CLOSURE                | 40 MIL HDTPE   | 750,000 FT <sup>2</sup>   | HARDWICK, MA    |
| 2008 | LANDFILL CLOSURE                | 40 MIL LLDTPPE | 750,000 FT <sup>2</sup>   | FORT DRUM, NY   |
| 2008 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 500,000 FT <sup>2</sup>   | CONSTABLE, NY   |
| 2008 | LANDFILL CLOSURE                | 40 MIL HDTPE   | 450,000 FT <sup>2</sup>   | CHARLTON, MA    |
| 2009 | LANDFILL CLOSURE                | 40 MIL HDTPE   | 400,000 FT <sup>2</sup>   | COLEBROOK, NH   |
| 2009 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 240,000 FT <sup>2</sup>   | SOUTHBRIDGE, MA |
| 2009 | LANDFILL CLOSURE<br>(TEMPORARY) | 30 MIL HDPE    | 480,000 FT <sup>2</sup>   | BOURNE, MA      |
| 2010 | LANDFILL CLOSURE                | 40 MIL LLDTPPE | 1,300,000 FT <sup>2</sup> | PLATTSBURGH, NY |
| 2010 | LANDFILL CLOSURE                | 40 MIL HDTPE   | 550,000 FT <sup>2</sup>   | WORCESTER, MA   |
| 2010 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 700,000 FT <sup>2</sup>   | PLATTSBURGH, NY |
| 2010 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 300,000 FT <sup>2</sup>   | NEWPORT, VT     |
| 2010 | LANDFILL CLOSURE                | 40 MIL HDTPE   | 230,000 FT <sup>2</sup>   | PLATTSBURGH, NY |
| 2011 | LANDFILL CLOSURE                | 40 MIL LLDTPPE | 450,000 FT <sup>2</sup>   | PLATTSBURGH, NY |
| 2011 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 400,000 FT <sup>2</sup>   | NEWPORT, VT     |
| 2011 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 100,000 FT <sup>2</sup>   | FLORENCE, VT    |
| 2011 | MISC PONDS                      | 60 MIL HDTPE   | 500,000 FT <sup>2</sup>   | EMPORIUM, PA    |
|      |                                 |                |                           |                 |
| 2010 | LANDFILL CLOSURE                | 40 MIL HDTPE   | 230,000 FT <sup>2</sup>   | PLATTSBURGH, NY |

# terrafix<sup>®</sup>

## environmental U.S.A. inc.

P.O. Box 367, 34 Court Street Auburn, Maine 04212 U.S.A. Tel: (207) 786-6808 Fax: (207) 786-6835

### ***RUSSELL JACKSON ~ SUPERVISOR/MASTER SEAMER*** *INSTALLATION REFERENCES*

Russell previously worked for New England Liners Inc.

| YEAR | PROJECT                 | PRODUCT                    | QUANTITY                                         | LOCATION        |
|------|-------------------------|----------------------------|--------------------------------------------------|-----------------|
| 2004 | LANDFILL CLOSURE (PH 2) | 40 MIL HDTPE               | 800,000 FT <sup>2</sup>                          | READING, MA     |
| 2004 | LANDFILL EXPANSION      | 60 MIL HDTPE               | 650,000 FT <sup>2</sup>                          | LEBANON, NH     |
| 2004 | LANDFILL CLOSURE        | 40 MIL LLDTPPE             | 500,000 FT <sup>2</sup>                          | NEW BEDFORD, MA |
| 2004 | LANDFILL CLOSURE        | 40 MIL HDTPE               | 360,000 FT <sup>2</sup>                          | CARVER, MA      |
| 2004 | LANDFILL CLOSURE        | 40 MIL LLDTPPE             | 850,000 FT <sup>2</sup>                          | CHEEKTOWAGA, NY |
| 2004 | LANDFILL EXPANSION      | 60 MIL HDTPE               | 1,150,000 FT <sup>2</sup>                        | SENECA, NY      |
| 2005 | LANDFILL EXPANSION      | 60 MIL HDTPE               | 1,200,000 FT <sup>2</sup>                        | SENECA, NY      |
| 2005 | POND                    | 40 MIL HDTPE               | 120,000 FT <sup>2</sup>                          | HOLLIS, ME      |
| 2005 | LANDFILL EXPANSION      | 60 MIL HDTPE               | 200,000 FT <sup>2</sup>                          | SPRINGFIELD, MA |
| 2006 | LANDFILL CLOSURE        | 40 MIL HDTPE               | 700,000 FT <sup>2</sup>                          | BROCKTON, MA    |
| 2006 | LANDFILL EXPANSION      | 80 MIL HDTPE               | 150,000 FT <sup>2</sup>                          | FRANKLIN, NH    |
| 2006 | LANDFILL CLOSURE        | 40 MIL HDTPE               | 400,000 FT <sup>2</sup>                          | SOUTHBRIDGE, MA |
| 2006 | LANDFILL EXPANSION      | 60 MIL HDTPE               | 600,000 FT <sup>2</sup>                          | ELMIRA, NY      |
| 2006 | LANDFILL CLOSURE        | 40 MIL HDTPE               | 120,000 FT <sup>2</sup>                          | MILLVILLE, MA   |
| 2007 | LANDFILL EXPANSION      | 60 MIL HDTPE               | 280,000 FT <sup>2</sup>                          | CAMPBELL, NY    |
| 2007 | LANDFILL EXPANSION      | 60 MIL HDTPE               | 850,000 FT <sup>2</sup>                          | ANGELICA, NY    |
| 2007 | LANDFILL EXPANSION      | 60 MIL HDPE<br>80 MIL HDPE | 60,000 FT <sup>2</sup><br>60,000 FT <sup>2</sup> | NANTUCKET, MA   |
| 2008 | LANDFILL EXPANSION      | 60 MIL HDTPE               | 230,000 FT <sup>2</sup>                          | BETHLEHEM, NH   |
| 2008 | LANDFILL EXPANSION      | 60 MIL HDTPE               | 1,300,000 FT <sup>2</sup>                        | NASHUA, NH      |
| 2009 | LANDFILL EXPANSION      | 60 MIL HDTPE               | 700,000 FT <sup>2</sup>                          | SENECA, NY      |
| 2010 | LANDFILL EXPANSION      | 60 MIL HDTPE               | 530,000 FT <sup>2</sup>                          | SENECA, NY      |
| 2010 | LANDFILL EXPANSION      | 60 MIL HDTPE               | 420,000 FT <sup>2</sup>                          | ELMIRA, NY      |
| 2010 | LANDFILL CLOSURE        | 40 MIL HDTPE               | 400,000 FT <sup>2</sup>                          | SOUTHBRIDGE, MA |
| 2010 | MISC PONDS              | 40 MIL LLDPE               | 2,200,000 FT <sup>2</sup>                        | WASHINGTON, PA  |

|      |                    |              |                         |                 |
|------|--------------------|--------------|-------------------------|-----------------|
| 2011 | LANDFILL EXPANSION | 60 MIL HDTPE | 550,000 FT <sup>2</sup> | ANGELICA, NY    |
| 2011 | LANDFILL EXPANSION | 60 MIL HDTPE | 400,000 FT <sup>2</sup> | CAMPBELL, NY    |
| 2011 | LANDFILL EXPANSION | 60 MIL HDTPE | 220,000 FT <sup>2</sup> | MT JEWETT, PA   |
| 2011 | LANDFILL EXPANSION | 60 MIL HDTPE | 200,000 FT <sup>2</sup> | SOUTHBRIDGE, MA |
| 2011 | MISC PONDS         | 40 MIL LLDPE | 600,000 FT <sup>2</sup> | WASHINGTON, PA  |
| 2011 | MISC PONDS         | 40 MIL HDTPE | 400,000 FT <sup>2</sup> | KANE, PA        |



# **terrafix<sup>®</sup>**

## **environmental U.S.A. inc.**

P.O. Box 367, 34 Court Street Auburn, Maine 04212 U.S.A. Tel: (207) 786-6808 Fax: (207) 786-6835

### ***GLEN KARLSEN ~ SUPERVISOR/MASTER SEAMER***

***INSTALLATION REFERENCES***

Glen previously worked for New Lining Solutions Inc.

| <b>YEAR</b> | <b>PROJECT</b>     | <b>PRODUCT</b> | <b>QUANTITY</b>           | <b>LOCATION</b>     |
|-------------|--------------------|----------------|---------------------------|---------------------|
| 2007        | LANDFILL EXPANSION | 60 MIL HDTPE   | 650,000 FT <sup>2</sup>   | NEWPORT, VT         |
| 2007        | LANDFILL CLOSURE   | 40 MIL LLDTPPE | 220,000 FT <sup>2</sup>   | WATERTOWN, NY       |
| 2007        | LANDFILL CLOSURE   | 40 MIL HDTPE   | 500,000 FT <sup>2</sup>   | HARDWICK, MA        |
| 2007        | LANDFILL CLOSURE   | 40 MIL HDTPE   | 300,000 FT <sup>2</sup>   | OLD TOWN, ME        |
| 2008        | LANDFILL EXPANSION | 60 MIL HDTPE   | 250,000 FT <sup>2</sup>   | CAMPBELL, NY        |
| 2008        | LANDFILL EXPANSION | 60 MIL HDTPE   | 200,000 FT <sup>2</sup>   | ANGELICA, NY        |
| 2008        | LANDFILL CLOSURE   | 40 MIL HDTPE   | 250,000 FT <sup>2</sup>   | COLEBROOK, NH       |
| 2008        | LANDFILL EXPANSION | 60 MIL HDTPE   | 450,000 FT <sup>2</sup>   | BOURNE, MA          |
| 2009        | LANDFILL CLOSURE   | 40 MIL LLDTPPE | 700,000 FT <sup>2</sup>   | CAMPBELL, NY        |
| 2009        | LANDFILL EXPANSION | 60 MIL HDTPE   | 550,000 FT <sup>2</sup>   | NEWPORT, VT         |
| 2010        | LANDFILL EXPANSION | 60 MIL HDTPE   | 200,000 FT <sup>2</sup>   | ANGELICA, NY        |
| 2010        | LANDFILL CLOSURE   | 40 MIL HDTPE   | 200,000 FT <sup>2</sup>   | STOUGHTON, MA       |
| 2010        | MISC PONDS         | 40 MIL LLDPE   | 800,000 FT <sup>2</sup>   | WASHINGTON, PA      |
| 2010        | MISC PONDS         | 40 MIL HDPE    | 1,500,000 FT <sup>2</sup> | WILLIAMSPORT, PA    |
| 2011        | LANDFILL CLOSURE   | 60 MIL LLDTPPE | 1,000,000 FT <sup>2</sup> | SOUTH STRAFFORD, VT |
| 2011        | MISC PONDS         | 40 MIL LLDPE   | 600,000 FT <sup>2</sup>   | WASHINGTON, PA      |
| 2011        | MISC PONDS         | 40 MIL HDTPE   | 400,000 FT <sup>2</sup>   | KANE, PA            |

# **terrafix<sup>®</sup>**

## **environmental U.S.A. inc.**

P.O. Box 367, 34 Court Street Auburn, Maine 04212 U.S.A. Tel: (207) 786-6808 Fax: (207) 786-6835

### **INSTALLED PROJECTS REFERENCE LIST**

---

|                       |                           |                  |             |
|-----------------------|---------------------------|------------------|-------------|
| <b>Project Title:</b> | <b>Waste USA - Cell 3</b> |                  |             |
| <b>Date:</b>          | Summer 1995               | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>        | Casella Waste Management  | 80 mil HDPE      | 250,000 ft2 |
| <b>Location:</b>      | Newport, VT               | 60 mil HDPE      | 250,000 ft2 |
| <b>Consulting:</b>    | Dufresne Henry Eng.       |                  |             |

---

---

|                       |                                   |                  |             |
|-----------------------|-----------------------------------|------------------|-------------|
| <b>Project Title:</b> | <b>Brunswick Landfill Closure</b> |                  |             |
| <b>Date:</b>          | Summer 1995                       | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>        | Ray Labbe & Sons Inc.             | 40 mil HDPE      | 162,000 ft2 |
| <b>Location:</b>      | Brunswick, ME                     |                  |             |
| <b>Consulting:</b>    | Woodard & Curran Inc.             |                  |             |

---

---

|                       |                                    |                  |             |
|-----------------------|------------------------------------|------------------|-------------|
| <b>Project Title:</b> | <b>Bethlehem Landfill - Cell 3</b> |                  |             |
| <b>Date:</b>          | Fall/Winter 1995                   | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>        | Casella Waste Management           | 60 mil HDPE      | 432,000 ft2 |
| <b>Location:</b>      | Bethlehem, NH                      |                  |             |
| <b>Consulting:</b>    | Sanborn, Head & Associates         |                  |             |

---

---

|                       |                           |                  |             |
|-----------------------|---------------------------|------------------|-------------|
| <b>Project Title:</b> | <b>Waste USA - Cell 4</b> |                  |             |
| <b>Date:</b>          | Summer 1996               | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>        | Casella Waste Management  | 80 mil HDPE      | 260,000 ft2 |
| <b>Location:</b>      | Newport, VT               | 80 mil HDTPE     | 140,000 ft2 |
| <b>Consulting:</b>    | Dufresne Henry Eng.       | 60 mil HDPE      | 270,000 ft2 |
|                       |                           | 60 mil HDTPE     | 140,000 ft2 |
|                       |                           | Geocomposite     | 140,000 ft2 |
|                       |                           | GCL              | 400,000 ft2 |

---

---

|                       |                                |                  |             |
|-----------------------|--------------------------------|------------------|-------------|
| <b>Project Title:</b> | <b>Warren Landfill Closure</b> |                  |             |
| <b>Date:</b>          | Spring 1996                    | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>        | Ferraiolo Construction         | 40 mil LLDTPPE   | 175,000 ft2 |
| <b>Location:</b>      | Warren, ME                     | Geocomposite     | 175,000 ft2 |
| <b>Consulting:</b>    | Woodard & Curran Inc.          |                  |             |

---

---

|                       |                                  |                  |             |
|-----------------------|----------------------------------|------------------|-------------|
| <b>Project Title:</b> | <b>Yarmouth Landfill Closure</b> |                  |             |
| <b>Date:</b>          | Fall 1996                        | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>        | Robert B. Our Co.                | 40 mil HDPE      | 520,000 ft2 |
| <b>Location:</b>      | Yarmouth, MA                     |                  |             |
| <b>Consulting:</b>    | Camp Dresser & McKee             |                  |             |

---

---

|                       |                                  |                  |             |
|-----------------------|----------------------------------|------------------|-------------|
| <b>Project Title:</b> | <b>Rehoboth Landfill Closure</b> |                  |             |
| <b>Date:</b>          | Fall 1996                        | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>        | C. Spirito Inc.                  | 40 mil HDPE      | 600,000 ft2 |
| <b>Location:</b>      | Rehoboth, MA                     | Geocomposite     | 600,000 ft2 |
| <b>Consulting:</b>    | McGuire Group                    |                  |             |

---

|                       |                                               |                  |               |
|-----------------------|-----------------------------------------------|------------------|---------------|
| <b>Project Title:</b> | <b><i>Cohasset Landfill Closure</i></b>       |                  |               |
| <b>Date:</b>          | Fall 1996                                     | <b>Materials</b> | <b>Area</b>   |
| <b>Client:</b>        | C. Spirito Inc.                               | 40 mil HDTPE     | 324,000 ft2   |
| <b>Location:</b>      | Cohasset, MA                                  |                  |               |
| <b>Consulting:</b>    | Camp Dresser & McKee                          |                  |               |
| <b>Project Title:</b> | <b><i>Bethlehem Landfill Closure</i></b>      |                  |               |
| <b>Date:</b>          | September 1997                                | <b>Materials</b> | <b>Area</b>   |
| <b>Client:</b>        | Casella Construction Inc.                     | 40 mil LLDTPPE   | 750,000 ft2   |
| <b>Location:</b>      | Bethlehem, NH                                 | Geocomposite     | 750,000 ft2   |
| <b>Consulting:</b>    | Sanborn, Head & Associates                    |                  |               |
| <b>Project Title:</b> | <b><i>Clinton County Landfill Closure</i></b> |                  |               |
| <b>Date:</b>          | May - August 1997                             | <b>Materials</b> | <b>Area</b>   |
| <b>Contractor:</b>    | New England Waste Services of New York        | 40 mil PVC       | 1,500,000 ft2 |
| <b>Location:</b>      | Plattsburgh, NY                               | Geotextile       | 1,500,000 ft2 |
| <b>Consulting:</b>    | Spectra Engineering                           |                  |               |
| <b>Project Title:</b> | <b><i>Bridgewater Landfill Closure</i></b>    |                  |               |
| <b>Date:</b>          | September 1997                                | <b>Materials</b> | <b>Area</b>   |
| <b>Client:</b>        | R.Bates & Sons Inc.                           | 40 mil HDTPE     | 455,000 ft2   |
| <b>Location:</b>      | Bridgewater, MA                               |                  |               |
| <b>Consulting:</b>    | C.G.K. Inc.                                   |                  |               |
| <b>Project Title:</b> | <b><i>Lycoming County Landfill Part I</i></b> |                  |               |
| <b>Date:</b>          | October/November 1997                         | <b>Materials</b> | <b>Area</b>   |
| <b>Client:</b>        | Milestone Materials Inc.                      | 100 mil HDPE     | 400,000 ft2   |
| <b>Location:</b>      | Williamsport, PA                              | Geotextile       | 600,000 ft2   |
| <b>Consulting:</b>    | Cummings & Smith Inc.                         | GCL              | 200,000 ft2   |
|                       |                                               | Geonet           | 800,000 ft2   |
| <b>Project Title:</b> | <b><i>Oak Bluffs Landfill Closure</i></b>     |                  |               |
| <b>Date:</b>          | April 1998                                    | <b>Materials</b> | <b>Area</b>   |
| <b>Client:</b>        | Robert B. Our Inc.                            | 40 mil HDTPE     | 360,000 ft2   |
| <b>Location:</b>      | Oak Bluffs, MA                                |                  |               |
| <b>Consulting:</b>    | Earth Tech Inc.                               |                  |               |
| <b>Project Title:</b> | <b><i>Lycoming County Landfill Part 2</i></b> |                  |               |
| <b>Date:</b>          | May 1998                                      | <b>Materials</b> | <b>Area</b>   |
| <b>Client:</b>        | Milestone Materials Inc.                      | 100 mil HDPE     | 360,000 ft2   |
| <b>Location:</b>      | Williamsport, PA                              | Geotextile       | 540,000 ft2   |
| <b>Consulting:</b>    | Cummings & Smith Inc.                         | GCL              | 180,000 ft2   |
|                       |                                               | Geonet           | 720,000 ft2   |
| <b>Project Title:</b> | <b><i>Derry Landfill Closure</i></b>          |                  |               |
| <b>Date:</b>          | June/July 1998                                | <b>Materials</b> | <b>Area</b>   |
| <b>Client:</b>        | Town of Derry                                 | 40 mil HDTPE     | 350,000 ft2   |
| <b>Location:</b>      | Derry, NH                                     | Geocomposite     | 350,000 ft2   |
| <b>Consulting:</b>    | Lewis Berger & Assoc.                         |                  |               |
| <b>Project Title:</b> | <b><i>Southbridge Landfill Expansion</i></b>  |                  |               |
| <b>Date:</b>          | July 1998                                     | <b>Materials</b> | <b>Area</b>   |
| <b>Client:</b>        | E, T & L Inc.                                 | 60 mil HDPE      | 160,000 ft2   |
| <b>Location:</b>      | Southbridge, MA                               |                  |               |
| <b>Consulting:</b>    | In House for Owner                            |                  |               |
| <b>Project Title:</b> | <b><i>Attleboro Landfill Expansion</i></b>    |                  |               |
| <b>Date:</b>          | August 1998                                   | <b>Materials</b> | <b>Area</b>   |
| <b>Client:</b>        | Town of Attleboro                             | 60 mil HDPE      | 150,000 ft2   |

**Location:** Attleboro, MA  
**Consulting:** Camp Dresser & McKee

---

**Project Title:** *Waste USA - Phase 3 Cell 1*

|                    |                            |                  |             |
|--------------------|----------------------------|------------------|-------------|
| <b>Date:</b>       | September 1998             | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Waste Management   | 80 mil HDPE      | 560,000 ft2 |
| <b>Location:</b>   | Newport, VT                | Geocomposite     | 400,000 ft2 |
| <b>Consulting:</b> | Sanborn, Head & Associates | GCL              | 280,000 ft2 |

---

---

**Project Title:** *Brunswick Landfill Expansion*

|                    |                              |                  |             |
|--------------------|------------------------------|------------------|-------------|
| <b>Date:</b>       | September/October 1998       | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Harry C. Crooker & Sons Inc. | 80 mil HDTPE     | 500,000 ft2 |
| <b>Location:</b>   | Brunswick, ME                | Geocomposite     | 250,000 ft2 |
| <b>Consulting:</b> | Woodard & Curran Inc.        | GCL              | 250,000 ft2 |
|                    |                              | Geotextile       | 250,000 ft2 |

---

---

**Project Title:** *Bethlehem Landfill Expansion Stage 2 Phase 2*

|                    |                            |                  |             |
|--------------------|----------------------------|------------------|-------------|
| <b>Date:</b>       | October 1998               | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Waste Management   | 60 mil HDTPE     | 340,000 ft2 |
| <b>Location:</b>   | Bethlehem, NH              | Geocomposite     | 340,000 ft2 |
| <b>Consulting:</b> | Sanborn, Head & Associates |                  |             |

---

---

**Project Title:** *Clinton County Landfill Expansion - Field 8*

|                    |                       |                  |             |
|--------------------|-----------------------|------------------|-------------|
| <b>Date:</b>       | October 1998          | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | C.C.S.W.A.            | 100 mil HDPE     | 280,000 ft2 |
| <b>Location:</b>   | McElhattan, PA        | Geonet           | 320,000 ft2 |
| <b>Consulting:</b> | Cummings & Smith Inc. | GCL              | 50,000 ft2  |
|                    |                       | Geotextile       | 150,000 ft2 |

---

---

**Project Title:** *Union Camp Chemicals Pond #1*

|                    |                    |                  |             |
|--------------------|--------------------|------------------|-------------|
| <b>Date:</b>       | October 1998       | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Chapman Excavating | 60 mil HDTPE     | 320,000 ft2 |
| <b>Location:</b>   | Dover, OH          | Geocomposite     | 160,000 ft2 |
| <b>Consulting:</b> | Chester Engineers  | GCL              | 160,000 ft2 |

---

---

**Project Title:** *Wellesley Gateway*

|                    |                            |                  |             |
|--------------------|----------------------------|------------------|-------------|
| <b>Date:</b>       | November 1998              | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Northeast Contractors Inc. | 40 mil HDPE      | 90,000 ft2  |
| <b>Location:</b>   | Wellesley, MA              |                  |             |
| <b>Consulting:</b> | GZA Inc.                   |                  |             |

---

---

**Project Title:** *Aquinnah Landfill Closure*

|                    |                      |                  |             |
|--------------------|----------------------|------------------|-------------|
| <b>Date:</b>       | December 1998        | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Lawrence Lynch Inc.  | 40 mil HDTPE     | 60,000 ft2  |
| <b>Location:</b>   | Aquinnah, MA         |                  |             |
| <b>Consulting:</b> | Decoulos Engineering |                  |             |

---

---

**Project Title:** *Sudbury Well #8*

|                    |                                   |                  |             |
|--------------------|-----------------------------------|------------------|-------------|
| <b>Date:</b>       | March 1999                        | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Puma Corp.                        | 60 mil HDTPE     | 10,000 ft2  |
| <b>Location:</b>   | Sudbury, MA                       |                  |             |
| <b>Consulting:</b> | H <sub>2</sub> O Engineering Inc. |                  |             |

---

---

**Project Title:** *New York Christian Life Church*

|              |            |                  |             |
|--------------|------------|------------------|-------------|
| <b>Date:</b> | April 1999 | <b>Materials</b> | <b>Area</b> |
|--------------|------------|------------------|-------------|

|                    |                               |                    |            |
|--------------------|-------------------------------|--------------------|------------|
| <b>Client:</b>     | Legacy Construction Inc.      | 80 mil Liquid Boot | 60,000 ft2 |
| <b>Location:</b>   | Brooklyn, NY                  |                    |            |
| <b>Consulting:</b> | SCS Environmental Engineering |                    |            |

***Project Title: Containment Area***

|                    |                          |                  |             |
|--------------------|--------------------------|------------------|-------------|
| <b>Date:</b>       | May 1999                 | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Maine Wood Treaters Inc. | 60 mil HDPE      | 10,000 ft2  |
| <b>Location:</b>   | Mechanic Falls, ME       |                  |             |
| <b>Consulting:</b> | n/a                      |                  |             |

***Project Title: Marlborough Landfill Closure***

|                    |                         |                  |             |
|--------------------|-------------------------|------------------|-------------|
| <b>Date:</b>       | May 1999                | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Town of Marlborough     | 40 mil HDPE      | 33,000 ft2  |
| <b>Location:</b>   | Marlborough, CT         |                  |             |
| <b>Consulting:</b> | S.E.A. Engineering Inc. |                  |             |

***Project Title: Fairhaven Landfill Closure***

|                    |                              |                  |               |
|--------------------|------------------------------|------------------|---------------|
| <b>Date:</b>       | June/July 1999               | <b>Materials</b> | <b>Area</b>   |
| <b>Client:</b>     | Littleton Environmental Inc. | 40 mil HDTPE     | 1,000,000 ft2 |
| <b>Location:</b>   | Fairhaven, MA                |                  |               |
| <b>Consulting:</b> | CGK Engineering Inc.         |                  |               |

***Project Title: Poland High School Pond***

|                    |                                 |                  |             |
|--------------------|---------------------------------|------------------|-------------|
| <b>Date:</b>       | September 1999                  | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | RSL Excavation Inc.             | 40 mil HDPE      | 30,000 ft2  |
| <b>Location:</b>   | Poland, ME                      |                  |             |
| <b>Consulting:</b> | Deluca Hoffman Engineering Inc. |                  |             |

***Project Title: Providence Gas Company***

|                    |                      |                  |             |
|--------------------|----------------------|------------------|-------------|
| <b>Date:</b>       | July 1999            | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | ThermoRetec Inc.     | 40 mil HDPE      | 100,000 ft2 |
| <b>Location:</b>   | Providence, RI       |                  |             |
| <b>Consulting:</b> | ESS Engineering Inc. |                  |             |

***Project Title: Nantucket Compost Plant - Recycle Building***

|                    |                     |                  |             |
|--------------------|---------------------|------------------|-------------|
| <b>Date:</b>       | August 1999         | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Lawrence Lynch Inc. | 60 mil HDPE      | 30,000 ft2  |
| <b>Location:</b>   | Nantucket, MA       |                  |             |
| <b>Consulting:</b> | In House            |                  |             |

***Project Title: Salisbury Landfill Closure***

|                    |                              |                  |             |
|--------------------|------------------------------|------------------|-------------|
| <b>Date:</b>       | September 1999               | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Barletta Heavy Division Inc. | 40 mil HDTPE     | 650,000 ft2 |
| <b>Location:</b>   | Salisbury, MA                |                  |             |
| <b>Consulting:</b> | CDM Engineering Inc.         |                  |             |

***Project Title: Schuyler Falls Landfill Expansion - Cell #5***

|                    |                                     |                  |             |
|--------------------|-------------------------------------|------------------|-------------|
| <b>Date:</b>       | August 1999                         | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Construction Inc.           | 60 mil HDTPE     | 500,000 ft2 |
| <b>Location:</b>   | Plattsburgh, NY                     | Geocomposite     | 250,000 ft2 |
| <b>Consulting:</b> | Barton & Loguidice Engineering Inc. | GCL              | 200,000 ft2 |

***Project Title: Topsfield Landfill Closure***

|                  |                              |                  |             |
|------------------|------------------------------|------------------|-------------|
| <b>Date:</b>     | September/October 1999       | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>   | Barletta Heavy Division Inc. | 40 mil HDTPE     | 500,000 ft2 |
| <b>Location:</b> | Topsfield, MA                | 40 mil HDPE      | 700,000 ft2 |

**Consulting:** Weston & Sampson Engineering Inc.

---

**Project Title:** *Waste USA - Phase 3 - Cell 1 - Subcell 3*

|                    |                            |                  |             |
|--------------------|----------------------------|------------------|-------------|
| <b>Date:</b>       | September/October 1999     | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Waste Management   | 60 mil HDTPE     | 450,000 ft2 |
| <b>Location:</b>   | Newport, VT                | Geocomposite     | 340,000 ft2 |
| <b>Consulting:</b> | Sanborn, Head & Associates | GCL              | 210,000 ft2 |

---

---

**Project Title:** *Southbridge Landfill Expansion Cell #5*

|                    |                           |                     |             |
|--------------------|---------------------------|---------------------|-------------|
| <b>Date:</b>       | November 1999             | <b>Materials</b>    | <b>Area</b> |
| <b>Client:</b>     | Wood Recycling Inc.       | 60 mil HDPE (white) | 120,000 ft2 |
| <b>Location:</b>   | Southbridge, MA           |                     |             |
| <b>Consulting:</b> | Lynfield Engineering Inc. |                     |             |

---

---

**Project Title:** *Union Camp Chemicals Pond #2*

|                    |                    |                  |             |
|--------------------|--------------------|------------------|-------------|
| <b>Date:</b>       | October 1999       | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Chapman Excavating | 60 mil HDTPE     | 320,000 ft2 |
| <b>Location:</b>   | Dover, OH          | Geocomposite     | 160,000 ft2 |
| <b>Consulting:</b> | Chester Engineers  | GCL              | 160,000 ft2 |

---

---

**Project Title:** *Tisbury Landfill Closure*

|                    |                      |                  |             |
|--------------------|----------------------|------------------|-------------|
| <b>Date:</b>       | November 1999        | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | UEL Contractors Inc. | 40 mil LLDTPE    | 300,000 ft2 |
| <b>Location:</b>   | Tisbury, MA          |                  |             |
| <b>Consulting:</b> | Earth Tech Inc.      |                  |             |

---

---

**Project Title:** *Nantucket Compost Plant - Phase 1 Landfill Closure*

|                    |                          |                  |             |
|--------------------|--------------------------|------------------|-------------|
| <b>Date:</b>       | December 1999            | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Waste Options Inc.       | 40 mil HDTPE     | 450,000 ft2 |
| <b>Location:</b>   | Nantucket, MA            |                  |             |
| <b>Consulting:</b> | Secor International Inc. |                  |             |

---

---

**Project Title:** *Poland Springs Pond*

|                    |                              |                  |             |
|--------------------|------------------------------|------------------|-------------|
| <b>Date:</b>       | April 2000                   | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Shaw Brothers Inc.           | 40 mil HDPE      | 120,000 ft2 |
| <b>Location:</b>   | Hollis, ME                   |                  |             |
| <b>Consulting:</b> | Wright Pierce Engineers Inc. |                  |             |

---

---

**Project Title:** *Southbridge Landfill Expansion Cell #6*

|                    |                           |                     |             |
|--------------------|---------------------------|---------------------|-------------|
| <b>Date:</b>       | June 2000                 | <b>Materials</b>    | <b>Area</b> |
| <b>Client:</b>     | Wood Recycling Inc.       | 60 mil HDPE (white) | 150,000 ft2 |
| <b>Location:</b>   | Southbridge, MA           |                     |             |
| <b>Consulting:</b> | Lynfield Engineering Inc. |                     |             |

---

---

**Project Title:** *Schuyler Falls Landfill Expansion - East Side Development*

|                    |                                     |                  |               |
|--------------------|-------------------------------------|------------------|---------------|
| <b>Date:</b>       | June - September 2000               | <b>Materials</b> | <b>Area</b>   |
| <b>Client:</b>     | Casella Construction Inc.           | 60 mil HDTPE     | 1,000,000 ft2 |
| <b>Location:</b>   | Plattsburgh, NY                     | Geocomposite     | 1,000,000 ft2 |
| <b>Consulting:</b> | Barton & Loguidice Engineering Inc. | GCL              | 450,000 ft2   |

---

---

**Project Title:** *Nantucket Compost Plant - Phase 2 Landfill Closure*

|                    |                          |                  |             |
|--------------------|--------------------------|------------------|-------------|
| <b>Date:</b>       | September 2000           | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Waste Options Inc.       | 40 mil HDTPE     | 400,000 ft2 |
| <b>Location:</b>   | Nantucket, MA            |                  |             |
| <b>Consulting:</b> | Secor International Inc. |                  |             |

---

**Project Title:** *Clinton County Landfill Expansion - Field 11 & 12*

|                    |                          |                  |             |
|--------------------|--------------------------|------------------|-------------|
| <b>Date:</b>       | August 2000              | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | C.C.S.W.A.               | 100 mil HDPE     | 450,000 ft2 |
| <b>Location:</b>   | McElhattan, PA           | Geonet           | 650,000 ft2 |
| <b>Consulting:</b> | Blazosky Associates Inc. | GCL              | 130,000 ft2 |
|                    |                          | Geotextile       | 30,000 ft2  |

---

---

**Project Title:** *Buffalo Niagara Airport*

|                    |                           |                  |             |
|--------------------|---------------------------|------------------|-------------|
| <b>Date:</b>       | July 2000                 | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Dipizio Construction Inc. | 60 mil HDTPE     | 120,000 ft2 |
| <b>Location:</b>   | Buffalo, NY               | Geocomposite     | 60,000 ft2  |
| <b>Consulting:</b> | TVGA Engineering Inc.     |                  |             |

---

---

**Project Title:** *Bourne Landfill Expansion - Phase 3*

|                    |                        |                  |             |
|--------------------|------------------------|------------------|-------------|
| <b>Date:</b>       | October 2000           | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | R.Bates & Sons Inc.    | 60 mil HDTPE     | 800,000 ft2 |
| <b>Location:</b>   | Bourne, MA             | Geocomposite     | 400,000 ft2 |
| <b>Consulting:</b> | CGK Environmental Inc. | GCL              | 660,000 ft2 |

---

---

**Project Title:** *Goffstown Landfill Closure*

|                    |                       |                  |             |
|--------------------|-----------------------|------------------|-------------|
| <b>Date:</b>       | June/July 2001        | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Thibeault Corporation | 40 mil HDTPE     | 800,000 ft2 |
| <b>Location:</b>   | Goffstown, NH         |                  |             |
| <b>Consulting:</b> | GeoInsight Inc.       |                  |             |

---

---

**Project Title:** *Sawyer Landfill Expansion - Phase 6 (Secure 3)*

|                    |                              |                  |               |
|--------------------|------------------------------|------------------|---------------|
| <b>Date:</b>       | June/July/August 2001        | <b>Materials</b> | <b>Area</b>   |
| <b>Client:</b>     | Sargent & Sargent Inc.       | 80 mil HDTPE     | 1,000,000 ft2 |
| <b>Location:</b>   | Bangor, ME                   | Geocomposite     | 1,000,000 ft2 |
| <b>Consulting:</b> | Sevee & Maher Engineers Inc. | GCL              | 250,000 ft2   |

---

---

**Project Title:** *Newbury Landfill Closure*

|                    |                                |                  |             |
|--------------------|--------------------------------|------------------|-------------|
| <b>Date:</b>       | August 2001                    | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Construction Inc.      | 40 mil LLDTPE    | 350,000 ft2 |
| <b>Location:</b>   | Newbury, VT                    |                  |             |
| <b>Consulting:</b> | O'Leary-Burke Civil Associates |                  |             |

---

---

**Project Title:** *CV Landfill Closure*

|                    |                            |                  |             |
|--------------------|----------------------------|------------------|-------------|
| <b>Date:</b>       | August/September 2001      | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Construction Inc.  | 40 mil LLDTPE    | 700,000 ft2 |
| <b>Location:</b>   | Montpelier, VT             | Geocomposite     | 700,000 ft2 |
| <b>Consulting:</b> | Sanborn, Head & Associates |                  |             |

---

---

**Project Title:** *Newport-Ash Landfill Closure*

|                    |                           |                  |             |
|--------------------|---------------------------|------------------|-------------|
| <b>Date:</b>       | September/October 2001    | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Construction Inc. | 40 mil LLDTPE    | 200,000 ft2 |
| <b>Location:</b>   | Newport, NH               | Geocomposite     | 200,000 ft2 |
| <b>Consulting:</b> | Nobis Engineering Inc.    |                  |             |

---

---

**Project Title:** *Claremont Landfill Closure*

|                    |                            |                  |               |
|--------------------|----------------------------|------------------|---------------|
| <b>Date:</b>       | September/October 2001     | <b>Materials</b> | <b>Area</b>   |
| <b>Client:</b>     | Casella Construction Inc.  | 40 mil HDTPE     | 1,000,000 ft2 |
| <b>Location:</b>   | Claremont, NH              | Geocomposite     | 150,000 ft2   |
| <b>Consulting:</b> | Dufresne-Henry Engineering |                  |               |

---

---

**Project Title:** *Lycoming County Landfill - Field 9***Date:** November/December 2001**Client:** HRI Inc.**Location:** Williamsport, PA**Consulting:** Cummings & Smith Inc.**Materials**

100 mil HDPE

Geotextile

GCL

Geonet

**Area**

1,000,000 ft2

1,600,000 ft2

550,000 ft2

2,200,000 ft2

---

**Project Title:** *Woburn Landfill Closure***Date:** July/August/September/October 2002**Client:** Casella Waste Inc.**Location:** Woburn, MA**Consulting:** Lynnfield Engineering**Materials**

40 mil HDTPE

Geocomposite

Geotextile

**Area**

1,800,000 ft2

1,400,000 ft2

400,000 ft2

---

**Project Title:** *Nantucket Compost Plant - Phase 2 Expansion***Date:** October 2003**Client:** Waste Options Inc.**Location:** Nantucket, MA**Consulting:** In-house**Materials**

60 mil HDPE

80 mil HDPE

Geocomposite

GCL

**Area**

100,000 ft2

100,000 ft2

100,000 ft2

200,000 ft2

---

**Project Title:** *Ayer Landfill Closure***Date:** August 2002**Client:** Littleton Environmental Inc.**Location:** Ayer, MA**Consulting:** Tata & Howard Engineering Inc.**Materials**

40 mil HDTPE

**Area**450,000 ft2

---

**Project Title:** *Moretown Landfill Closure***Date:** October 2002**Client:** EE Packard Enterprises**Location:** Moretown, VT**Consulting:** Tighe & Bond Engineering**Materials**

40 mil HDTPE

GCL

**Area**

150,000 ft2

140,000 ft2

---

**Project Title:** *Hakes Landfill Expansion***Date:** August 2002**Client:** Hyland Landfill Facility Inc.**Location:** Campbell, NY**Consulting:** McMahon & Mann Engineering Inc.**Materials**

60 mil HDPE

Geotextile

**Area**

200,000 ft2

200,000 ft2

---

**Project Title:** *Plymouth Landfill Closure***Date:** August 2002**Client:** Scott Construction Inc.**Location:** Plymouth, NH**Consulting:** Nobis Engineering**Materials**

40 mil LLDTPPE

Geocomposite

**Area**

200,000 ft2

200,000 ft2

---

**Project Title:** *Rockingham WWTP***Date:** October 2002**Client:** Scott Construction Inc.**Location:** Brentwood, NH**Consulting:** Jaworski Engineering**Materials**

40 mil HDTPE

**Area**120,000 ft2

---

**Project Title:** *SD Warren/Sappi Paper Landfill Expansion - Cell 9***Date:** September 2002**Client:** Sargent & Sargent Inc.**Location:** Skowhegan, ME**Materials**

80 mil HDTPE

Geocomposite

**Area**

250,000 ft2

250,000 ft2



|                    |                              |     |             |
|--------------------|------------------------------|-----|-------------|
| <b>Consulting:</b> | Sevee & Maher Engineers Inc. | GCL | 250,000 ft2 |
|--------------------|------------------------------|-----|-------------|

---

**Project Title:** *Southbridge Landfill Expansion*

|                    |                           |                      |             |
|--------------------|---------------------------|----------------------|-------------|
| <b>Date:</b>       | July/August 2002          | <b>Materials</b>     | <b>Area</b> |
| <b>Client:</b>     | Wood Recycling Inc.       | 60 mil HDTPE (white) | 600,000 ft2 |
| <b>Location:</b>   | Southbridge, MA           | Geocomposite         | 600,000 ft2 |
| <b>Consulting:</b> | Lynfield Engineering Inc. | GCL                  | 300,000 ft2 |

---

**Project Title:** *Chautauqua County Landfill Closure*

|                    |                               |                          |               |
|--------------------|-------------------------------|--------------------------|---------------|
| <b>Date:</b>       | July/August 2003              | <b>Materials</b>         | <b>Area</b>   |
| <b>Client:</b>     | Ontario Specialty Contracting | 40 mil LLDTPE            | 500,000 ft2   |
| <b>Location:</b>   | Jamestown, NY                 | Geocomposite             | 1,000,000 ft2 |
| <b>Consulting:</b> | In-house                      | GCL                      | 150,000 ft2   |
|                    |                               | 60 mil HDPE (white/cond) | 100,000 ft2   |
|                    |                               | Geonet                   | 100,000 ft2   |

---

**Project Title:** *Schuyler Falls Landfill Expansion - Overlay Development*

|                    |                                     |                  |             |
|--------------------|-------------------------------------|------------------|-------------|
| <b>Date:</b>       | June - September 2003               | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Construction Inc.           | 60 mil HDTPE     | 700,000 ft2 |
| <b>Location:</b>   | Plattsburgh, NY                     | Geocomposite     | 500,000 ft2 |
| <b>Consulting:</b> | Barton & Loguidice Engineering Inc. | GCL              | 150,000 ft2 |
|                    |                                     | Geotextile       | 350,000 ft2 |

---

**Project Title:** *Cresticon Landfill Closure*

|                    |                      |                  |             |
|--------------------|----------------------|------------------|-------------|
| <b>Date:</b>       | June 2003            | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | UEL Contractors Inc. | 40 mil HDTPE     | 100,000 ft2 |
| <b>Location:</b>   | Fitchburg, MA        | Geocomposite     | 100,000 ft2 |
| <b>Consulting:</b> | Earth Tech Inc.      |                  |             |

---

**Project Title:** *Brockton Landfill Closure*

|                    |                            |                  |             |
|--------------------|----------------------------|------------------|-------------|
| <b>Date:</b>       | August 2003                | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | David G. Roach & Sons Inc. | 40 mil HDTPE     | 400,000 ft2 |
| <b>Location:</b>   | Brockton, MA               |                  |             |
| <b>Consulting:</b> | Sitec Environmental        |                  |             |

---

**Project Title:** *Nashua Landfill Closure*

|                    |                      |                  |             |
|--------------------|----------------------|------------------|-------------|
| <b>Date:</b>       | November 2003        | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | R. Bates & Sons Inc. | 40 mil HDTPE     | 300,000 ft2 |
| <b>Location:</b>   | Nashua, NH           |                  |             |
| <b>Consulting:</b> | CMA Engineers Inc.   |                  |             |

---

**Project Title:** *Walkers Brook Crossing Landfill Closure - Phase 1*

|                    |                              |                  |             |
|--------------------|------------------------------|------------------|-------------|
| <b>Date:</b>       | October - December 2003      | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | D.W. White Construction Inc. | 40 mil LLDTPE    | 350,000 ft2 |
| <b>Location:</b>   | Reading, MA                  |                  |             |
| <b>Consulting:</b> | Haley & Aldrich Inc.         |                  |             |

---

**Project Title:** *Southbridge Landfill Expansion - Cell 7.1B*

|                    |                           |                      |             |
|--------------------|---------------------------|----------------------|-------------|
| <b>Date:</b>       | August/September 2003     | <b>Materials</b>     | <b>Area</b> |
| <b>Client:</b>     | Wood Recycling Inc.       | 60 mil HDTPE (white) | 400,000 ft2 |
| <b>Location:</b>   | Southbridge, MA           | Geocomposite         | 400,000 ft2 |
| <b>Consulting:</b> | Lynfield Engineering Inc. | GCL                  | 200,000 ft2 |

---

**Project Title:** *Walkers Brook Crossing Landfill Closure - Phase 2*

|              |                        |                  |             |
|--------------|------------------------|------------------|-------------|
| <b>Date:</b> | August - December 2004 | <b>Materials</b> | <b>Area</b> |
|--------------|------------------------|------------------|-------------|

|                    |                              |               |             |
|--------------------|------------------------------|---------------|-------------|
| <b>Client:</b>     | D.W. White Construction Inc. | 40 mil LLDTPE | 800,000 ft2 |
| <b>Location:</b>   | Reading, MA                  |               |             |
| <b>Consulting:</b> | Haley & Aldrich Inc.         |               |             |

**Project Title:** *Crapo Hill Landfill Closure*

|                    |                            |                  |             |
|--------------------|----------------------------|------------------|-------------|
| <b>Date:</b>       | August/September 2004      | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | David G. Roach & Sons Inc. | 40 mil LLDTPE    | 500,000 ft2 |
| <b>Location:</b>   | New Bedford, MA            | Geocomposite     | 500,000 ft2 |
| <b>Consulting:</b> | Brown & Caldwell           |                  |             |

**Project Title:** *Carver Landfill Closure*

|                    |                    |                  |             |
|--------------------|--------------------|------------------|-------------|
| <b>Date:</b>       | August 2004        | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | BATG Environmental | 40 mil HDTPE     | 360,000 ft2 |
| <b>Location:</b>   | Carver, MA         | Geocomposite     | 360,000 ft2 |
| <b>Consulting:</b> | Norfolk Ram Group  |                  |             |

**Project Title:** *Lebanon Landfill Expansion - Phase 2B*

|                    |                          |                  |             |
|--------------------|--------------------------|------------------|-------------|
| <b>Date:</b>       | June/July 2004           | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | A. J. Coleman & Son Inc. | 60 mil HDPE      | 560,000 ft2 |
| <b>Location:</b>   | Lebanon, NH              | 60 mil HDTPE     | 75,000 ft2  |
| <b>Consulting:</b> | CMA Engineers Inc.       | Geocomposite     | 550,000 ft2 |
|                    |                          | GCL              | 250,000 ft2 |

**Project Title:** *Ontario County Landfill Expansion - Stage 4*

|                    |                                     |                  |               |
|--------------------|-------------------------------------|------------------|---------------|
| <b>Date:</b>       | July/August 2004                    | <b>Materials</b> | <b>Area</b>   |
| <b>Client:</b>     | Casella Waste Inc.                  | 60 mil HDTPE     | 1,150,000 ft2 |
| <b>Location:</b>   | Seneca, NY                          | Geocomposite     | 850,000 ft2   |
| <b>Consulting:</b> | Barton & Loguidice Engineering Inc. | GCL              | 340,000 ft2   |
|                    |                                     | Geotextile       | 600,000 ft2   |

**Project Title:** *Schultz Landfill Closure*

|                    |                    |                  |             |
|--------------------|--------------------|------------------|-------------|
| <b>Date:</b>       | July/August 2004   | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Waste Inc. | 40 mil LLDTPE    | 850,000 ft2 |
| <b>Location:</b>   | Cheektowaga, NY    | Geocomposite     | 650,000 ft2 |
| <b>Consulting:</b> | Ensol Inc.         | Geotextile       | 230,000 ft2 |

**Project Title:** *Southbridge Landfill Expansion - Cell 7.2A*

|                    |                       |                  |             |
|--------------------|-----------------------|------------------|-------------|
| <b>Date:</b>       | August/September 2005 | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Waste Inc.    | 60 mil HDTPE     | 400,000 ft2 |
| <b>Location:</b>   | Southbridge, MA       | Geocomposite     | 400,000 ft2 |
| <b>Consulting:</b> | Geosyntec Consultants | GCL              | 200,000 ft2 |

**Project Title:** *Waste USA - Phase 4 - Cell 1*

|                    |                            |                  |             |
|--------------------|----------------------------|------------------|-------------|
| <b>Date:</b>       | October/November 2005      | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Waste Management   | 60 mil HDTPE     | 700,000 ft2 |
| <b>Location:</b>   | Newport, VT                | Geocomposite     | 700,000 ft2 |
| <b>Consulting:</b> | Sanborn, Head & Associates | GCL              | 200,000 ft2 |

**Project Title:** *Ontario County Landfill Expansion - Stage 5A*

|                    |                                     |                  |               |
|--------------------|-------------------------------------|------------------|---------------|
| <b>Date:</b>       | July/August 2005                    | <b>Materials</b> | <b>Area</b>   |
| <b>Client:</b>     | Casella Waste Inc.                  | 60 mil HDTPE     | 1,200,000 ft2 |
| <b>Location:</b>   | Seneca, NY                          | Geocomposite     | 1,000,000 ft2 |
| <b>Consulting:</b> | Barton & Loguidice Engineering Inc. | GCL              | 200,000 ft2   |
|                    |                                     | Geotextile       | 1,150,000 ft2 |

**Project Title:** *Poland Springs Pond*

|                |                    |                  |             |
|----------------|--------------------|------------------|-------------|
| <b>Date:</b>   | November 2005      | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b> | Shaw Brothers Inc. | 40 mil HDTPE     | 120,000 ft2 |

**Location:** Hollis, ME  
**Consulting:** In House

---

***Project Title:*** ***Orleans Landfill Closure***

|                    |                       |                  |             |
|--------------------|-----------------------|------------------|-------------|
| <b>Date:</b>       | June 2005             | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Robert B. Our Co.     | 40 mil HDTPE     | 700,000 ft2 |
| <b>Location:</b>   | Orlenas, MA           |                  |             |
| <b>Consulting:</b> | Stearns & Wheler Inc. |                  |             |

---

---

***Project Title:*** ***Wellfleet Landfill Closure***

|                    |                             |                  |             |
|--------------------|-----------------------------|------------------|-------------|
| <b>Date:</b>       | June 2005                   | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | UEL Contractors Inc.        | 40 mil LLDTPPE   | 300,000 ft2 |
| <b>Location:</b>   | Wellfleet, MA               |                  |             |
| <b>Consulting:</b> | Environmental Partners Inc. |                  |             |

---

---

***Project Title:*** ***Bethlehem Landfill Expansion Stage 4 - Phase 1***

|                    |                            |                  |             |
|--------------------|----------------------------|------------------|-------------|
| <b>Date:</b>       | June 2006                  | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Waste Management   | 60 mil HDTPE     | 350,000 ft2 |
| <b>Location:</b>   | Bethlehem, NH              | Geocomposite     | 350,000 ft2 |
| <b>Consulting:</b> | Sanborn, Head & Associates |                  |             |

---

---

***Project Title:*** ***Southbridge Landfill Closure***

|                    |                          |                  |             |
|--------------------|--------------------------|------------------|-------------|
| <b>Date:</b>       | June - October 2006      | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Waste Management | 40 mil HDTPE     | 400,000 ft2 |
| <b>Location:</b>   | Southbridge, MA          | 60 mil HDTPE     | 300,000 ft2 |
| <b>Consulting:</b> | Geosyntec Consultants    | Geocomposite     | 700,000 ft2 |

---

---

***Project Title:*** ***Brockton Landfill Closure***

|                    |                            |                  |             |
|--------------------|----------------------------|------------------|-------------|
| <b>Date:</b>       | August 2006                | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | David G. Roach & Sons Inc. | 40 mil HDTPE     | 700,000 ft2 |
| <b>Location:</b>   | Brockton, MA               |                  |             |
| <b>Consulting:</b> | Sitec Environmental        |                  |             |

---

---

***Project Title:*** ***Schuyler Falls Landfill Expansion - Overlay Phase 3***

|                    |                                     |                  |             |
|--------------------|-------------------------------------|------------------|-------------|
| <b>Date:</b>       | August/September 2006               | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Marcy Construction Inc.             | 60 mil HDTPE     | 500,000 ft2 |
| <b>Location:</b>   | Plattsburgh, NY                     | Geocomposite     | 250,000 ft2 |
| <b>Consulting:</b> | Barton & Loguidice Engineering Inc. | Geotextile       | 250,000 ft2 |

---

---

***Project Title:*** ***Chemung County Landfill Expansion - Stage 4A***

|                    |                                     |                  |             |
|--------------------|-------------------------------------|------------------|-------------|
| <b>Date:</b>       | August/September 2006               | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Waste Inc.                  | 60 mil HDTPE     | 600,000 ft2 |
| <b>Location:</b>   | Elmira, NY                          | Geocomposite     | 600,000 ft2 |
| <b>Consulting:</b> | Barton & Loguidice Engineering Inc. | GCL              | 150,000 ft2 |
|                    |                                     | Geotextile       | 300,000 ft2 |

---

---

***Project Title:*** ***Franklin Landfill Expansion - Phase 4***

|                    |                        |                  |             |
|--------------------|------------------------|------------------|-------------|
| <b>Date:</b>       | July/August 2006       | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | RD Edmunds & Sons Inc. | 80 mil HDTPE     | 150,000 ft2 |
| <b>Location:</b>   | Franklin, NH           | Geocomposite     | 150,000 ft2 |
| <b>Consulting:</b> | CMA Engineers Inc.     | GCL              | 80,000 ft2  |

---

---

***Project Title:*** ***Stoughton Landfill Closure***

|                    |                     |                  |             |
|--------------------|---------------------|------------------|-------------|
| <b>Date:</b>       | October 2006        | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | TW Conroy LLC       | 40 mil HDTPE     | 250,000 ft2 |
| <b>Location:</b>   | Stoughton, MA       |                  |             |
| <b>Consulting:</b> | Sitec Environmental |                  |             |

---

**Project Title:** *Millville Landfill Closure***Date:** October 2006**Client:** BATG Environmental Inc.**Location:** Millville, MA**Consulting:** In House**Materials**

40 mil HDTPE

Geocomposite

**Area**

120,000 ft2

240,000 ft2

---

**Project Title:** *Auburn Landfill Closure***Date:** June 2007**Client:** Marcy Excavation Inc.**Location:** Auburn, NY**Consulting:** Barton & Loguidice Engineering Inc.**Materials**

40 mil LLDTPE

Geocomposite

**Area**

250,000 ft2

400,000 ft2

---

**Project Title:** *Southbridge Landfill Expansion***Date:** June - July 2007**Client:** Casella Waste Management**Location:** Southbridge, MA**Consulting:** Geosyntec Consultants**Materials**

60 mil HDTPE

Geocomposite

GCL

**Area**

400,000 ft2

400,000 ft2

200,000 ft2

---

**Project Title:** *Ontario County Landfill Expansion - Stage 5B & 6A***Date:** July - August 2007**Client:** Casella Waste Inc.**Location:** Seneca, NY**Consulting:** Barton & Loguidice Engineering Inc.**Materials**

60 mil HDTPE

Geocomposite

GCL

Geotextile

**Area**

760,000 ft2

550,000 ft2

220,000 ft2

780,000 ft2

---

**Project Title:** *Hakes Landfill Expansion - Cell 5***Date:** August 2007**Client:** Hyland Landfill Facility Inc.**Location:** Campbell, NY**Consulting:** McMahon & Mann Engineering Inc.**Materials**

60 mil HDPE

Geotextile

Geocomposite

**Area**

280,000 ft2

280,000 ft2

280,000 ft2

---

**Project Title:** *Hyland Landfill Expansion - Cell 3A***Date:** July - September 2007**Client:** Hyland Landfill Facility Inc.**Location:** Angelica, NY**Consulting:** McMahon & Mann Engineering Inc.**Materials**

60 mil HDPE

Geotextile

Geocomposite

GCL

**Area**

830,000 ft2

420,000 ft2

700,000 ft2

150,000 ft2

---

**Project Title:** *International Paper Landfill Closure***Date:** August 2007**Client:** Marcy Excavation Inc.**Location:** Watertown, NY**Consulting:** Stearns & Wheler LLC**Materials**

40 mil LLDTPE

**Area**220,000 ft2

---

**Project Title:** *Waste USA - Phase 4 - Cell 2***Date:** August 2007**Client:** Casella Waste Inc.**Location:** Newport, VT**Consulting:** Sanborn, Head & Associates**Materials**

60 mil HDTPE

Geocomposite

GCL

**Area**

650,000 ft2

650,000 ft2

220,000 ft2

---

**Project Title:** *Hardwick Landfill Closure***Date:** September 2007**Client:** Casella Waste Inc.**Location:** Hardwick, MA**Consulting:** Tighe & Bond Inc.**Materials**

40 mil HDTPE

**Area**

500,000 ft2

---

**Project Title:** *Colebrook Landfill Closure - Phase 1***Date:** August 2007**Client:** Casella Waste Inc.**Location:** Colebrook, NH**Consulting:** Lynfield Engineering Inc.**Materials**

40 mil HDTPE

Geocomposite

**Area**

300,000 ft2

300,000 ft2

---

**Project Title:** *Old Town Landfill Closure***Date:** November 2007**Client:** Casella Waste Inc.**Location:** Old Town, ME**Consulting:** Sevee & Maher Inc.**Materials**

40 mil HDTPE

**Area**300,000 ft2

---

**Project Title:** *Nantucket Compost Plant - Phase 2B Expansion***Date:** October 2007**Client:** Waste Options Inc.**Location:** Nantucket, MA**Consulting:** In-house**Materials**

60 mil HDPE

80 mil HDPE

Geocomposite

GCL

**Area**

60,000 ft2

60,000 ft2

60,000 ft2

120,000 ft2

---

**Project Title:** *Hardwick Landfill Closure***Date:** June 2008**Client:** Casella Waste Inc.**Location:** Hardwick, MA**Consulting:** Tighe & Bond Inc.**Materials**

40 mil HDTPE

Geotextile

**Area**

750,000 ft2

320,000 ft2

---

**Project Title:** *Fort Drum Landfill Closure***Date:** June 2008**Client:** Plexus Scientific Corporation**Location:** Fort Drum, NY**Consulting:** USACE**Materials**

40 mil LLDTPPE

**Area**750,000 ft2

---

**Project Title:** *Franklin County Landfill Expansion - Cell 4***Date:** August 2008**Client:** Perras Excavating Inc.**Location:** Constable, NY**Consulting:** Barton & Loguidice Engineering Inc.**Materials**

60 mil HDTPE

Geocomposite

GCL

**Area**

500,000 ft2

330,000 ft2

230,000 ft2

---

**Project Title:** *Fort Drum Fuel Tank Containment***Date:** August 2008**Client:** CAPE Inc.**Location:** Fort Drum, NY**Materials**

Petroguard 6

**Area**12,000 ft2

---

**Project Title:** *Charlton Landfill Closure***Date:** December 2008**Client:** BATG Environmental Inc.**Location:** Charlton, MA**Consulting:** In House**Materials**

40 mil HDTPE

**Area**450,000 ft2

---

**Project Title:** *Bethlehem Landfill Expansion Stage 4 - Phase 1 (Overlay)***Date:** July 2008**Client:** NCES**Location:** Bethlehem, NH**Consulting:** CMA Engineers Inc.**Materials**

60 mil HDTPE

Geocomposite

**Area**

230,000 ft2

230,000 ft2

---

**Project Title: Nashua Landfill Expansion**

|                    |                        |                  |               |
|--------------------|------------------------|------------------|---------------|
| <b>Date:</b>       | July - September 2008  | <b>Materials</b> | <b>Area</b>   |
| <b>Client:</b>     | RD Edmunds & Sons Inc. | 60 mil HDTPE     | 1,300,000 ft2 |
| <b>Location:</b>   | Nashua, NH             | Geocomposite     | 1,300,000 ft2 |
| <b>Consulting:</b> | Geosyntec Consultants  | GCL              | 330,000 ft2   |

---

---

**Project Title: Hyland Landfill Expansion - Cell 3B**

|                    |                                 |                  |             |
|--------------------|---------------------------------|------------------|-------------|
| <b>Date:</b>       | July 2008                       | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Hyland Landfill Facility Inc.   | 60 mil HDPE      | 200,000 ft2 |
| <b>Location:</b>   | Angelica, NY                    | Geotextile       | 100,000 ft2 |
| <b>Consulting:</b> | McMahon & Mann Engineering Inc. | GCL              | 100,000 ft2 |

---

---

**Project Title: Hakes Landfill Expansion - Cell 6**

|                    |                                 |                  |             |
|--------------------|---------------------------------|------------------|-------------|
| <b>Date:</b>       | August 2008                     | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Hyland Landfill Facility Inc.   | 60 mil HDPE      | 330,000 ft2 |
| <b>Location:</b>   | Campbell, NY                    | Geotextile       | 330,000 ft2 |
| <b>Consulting:</b> | McMahon & Mann Engineering Inc. | Geocomposite     | 280,000 ft2 |

---

---

**Project Title: Bourne Landfill Expansion - Phase 2A/3A - Stage 2**

|                    |                            |                  |             |
|--------------------|----------------------------|------------------|-------------|
| <b>Date:</b>       | September 2008             | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | G. Lopes Construction Inc. | 60 mil HDTPE     | 800,000 ft2 |
| <b>Location:</b>   | Bourne, MA                 | Geocomposite     | 400,000 ft2 |
| <b>Consulting:</b> | Sitec Environmental        | GCL              | 660,000 ft2 |

---

---

**Project Title: Edgeboro Landfill**

|                    |                         |                  |               |
|--------------------|-------------------------|------------------|---------------|
| <b>Date:</b>       | October - December 2008 | <b>Materials</b> | <b>Area</b>   |
| <b>Client:</b>     | Edgeboro International  | 12 mil Skrim     | 1,000,000 ft2 |
| <b>Location:</b>   | East Brunswick, NJ      | Geotextile       | 2,000,000 ft2 |
| <b>Consulting:</b> | Sadat Associates Inc.   |                  |               |

---

---

**Project Title: Colebrook Landfill Closure - Phase 2**

|                    |                           |                  |             |
|--------------------|---------------------------|------------------|-------------|
| <b>Date:</b>       | June 2009                 | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Waste Inc.        | 40 mil HDTPE     | 400,000 ft2 |
| <b>Location:</b>   | Colebrook, NH             | Geocomposite     | 400,000 ft2 |
| <b>Consulting:</b> | Lynfield Engineering Inc. |                  |             |

---

---

**Project Title: Southbridge Landfill Expansion**

|                    |                          |                  |             |
|--------------------|--------------------------|------------------|-------------|
| <b>Date:</b>       | July 2009                | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Waste Management | 60 mil HDTPE     | 240,000 ft2 |
| <b>Location:</b>   | Southbridge, MA          | Geocomposite     | 240,000 ft2 |
| <b>Consulting:</b> | Geosyntec Consultants    | GCL              | 120,000 ft2 |

---

---

**Project Title: Bourne Landfill - Temp Closure**

|                    |                     |                  |             |
|--------------------|---------------------|------------------|-------------|
| <b>Date:</b>       | October 2009        | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Bourne ISWMF        | 30 mil HDPE      | 480,000 ft2 |
| <b>Location:</b>   | Bourne, MA          |                  |             |
| <b>Consulting:</b> | Sitec Environmental |                  |             |

---

---

**Project Title: Ontario County Landfill Expansion - Stage 6B**

|                    |                                     |                  |             |
|--------------------|-------------------------------------|------------------|-------------|
| <b>Date:</b>       | July - August 2009                  | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Waste Inc.                  | 60 mil HDTPE     | 700,000 ft2 |
| <b>Location:</b>   | Seneca, NY                          | Geocomposite     | 550,000 ft2 |
| <b>Consulting:</b> | Barton & Loguidice Engineering Inc. | GCL              | 170,000 ft2 |
|                    |                                     | Geotextile       | 700,000 ft2 |

---

**Project Title:** *Hakes Landfill Closure*

|                    |                                 |                  |             |
|--------------------|---------------------------------|------------------|-------------|
| <b>Date:</b>       | July 2009                       | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Hyland Landfill Facility Inc.   | 40 mil LLTDPE    | 480,000 ft2 |
| <b>Location:</b>   | Campbell, NY                    | Geotextile       | 230,000 ft2 |
| <b>Consulting:</b> | McMahon & Mann Engineering Inc. | Geocomposite     | 700,000 ft2 |

---

**Project Title:** *Waste USA - Phase 4 - Cell 3A*

|                    |                            |                  |             |
|--------------------|----------------------------|------------------|-------------|
| <b>Date:</b>       | September 2009             | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Waste Inc.         | 60 mil HDTPE     | 550,000 ft2 |
| <b>Location:</b>   | Newport, VT                | Geocomposite     | 560,000 ft2 |
| <b>Consulting:</b> | Sanborn, Head & Associates | GCL              | 165,000 ft2 |

---

**Project Title:** *Akey Road Landfill Closure*

|                    |                                     |                  |               |
|--------------------|-------------------------------------|------------------|---------------|
| <b>Date:</b>       | July - September 2010               | <b>Materials</b> | <b>Area</b>   |
| <b>Client:</b>     | Casella Construction Inc.           | 40 mil LLDTPE    | 1,300,000 ft2 |
| <b>Location:</b>   | Plattsburgh, NY                     | Geocomposite     | 1,300,000 ft2 |
| <b>Consulting:</b> | Barton & Loguidice Engineering Inc. |                  |               |

---

**Project Title:** *Worcester Landfill Closure*

|                    |                          |                  |             |
|--------------------|--------------------------|------------------|-------------|
| <b>Date:</b>       | June 2010                | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Waste Management | 40 mil HDTPE     | 550,000 ft2 |
| <b>Location:</b>   | Worcester, MA            | Geocomposite     | 200,000 ft2 |
| <b>Consulting:</b> | Geosyntec Consultants    |                  |             |

---

**Project Title:** *Clinton County Landfill Expansion - Phase 5 - Cell 1A*

|                    |                                     |                  |             |
|--------------------|-------------------------------------|------------------|-------------|
| <b>Date:</b>       | July - September 2010               | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Waste Management            | 60 mil HDTPE     | 700,000 ft2 |
| <b>Location:</b>   | Plattsburgh, NY                     | Geocomposite     | 700,000 ft2 |
| <b>Consulting:</b> | Barton & Loguidice Engineering Inc. | GCL              | 90,000 ft2  |
|                    |                                     | Geotextile       | 350,000 ft2 |

---

**Project Title:** *Waste USA - Phase 4 - Cell 4A*

|                    |                            |                  |             |
|--------------------|----------------------------|------------------|-------------|
| <b>Date:</b>       | September 2010             | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Waste Inc.         | 60 mil HDTPE     | 300,000 ft2 |
| <b>Location:</b>   | Newport, VT                | Geocomposite     | 320,000 ft2 |
| <b>Consulting:</b> | Sanborn, Head & Associates | GCL              | 120,000 ft2 |

---

**Project Title:** *Clinton County Landfill Closure - Phase 3 - Stage 1*

|                    |                                     |                  |             |
|--------------------|-------------------------------------|------------------|-------------|
| <b>Date:</b>       | October 2010                        | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Waste Management            | 40 mil HDTPE     | 230,000 ft2 |
| <b>Location:</b>   | Plattsburgh, NY                     |                  |             |
| <b>Consulting:</b> | Barton & Loguidice Engineering Inc. |                  |             |

---

**Project Title:** *Ontario County Landfill Expansion - Stage 7A*

|                    |                                     |                  |             |
|--------------------|-------------------------------------|------------------|-------------|
| <b>Date:</b>       | July - August 2010                  | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Waste Inc.                  | 60 mil HDTPE     | 530,000 ft2 |
| <b>Location:</b>   | Seneca, NY                          | Geocomposite     | 350,000 ft2 |
| <b>Consulting:</b> | Barton & Loguidice Engineering Inc. | GCL              | 190,000 ft2 |
|                    |                                     | Geotextile       | 660,000 ft2 |

---

**Project Title:** *Chemung County Landfill Expansion - Cell 4B*

|                    |                                     |                  |             |
|--------------------|-------------------------------------|------------------|-------------|
| <b>Date:</b>       | July - August 2010                  | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Waste Inc.                  | 60 mil HDTPE     | 420,000 ft2 |
| <b>Location:</b>   | Elmira, NY                          | Geocomposite     | 400,000 ft2 |
| <b>Consulting:</b> | Barton & Loguidice Engineering Inc. | GCL              | 70,000 ft2  |
|                    |                                     | Geotextile       | 225,000 ft2 |

---

---

**Project Title:** *Southbridge Landfill - Temp Closure*

|                    |                          |                  |             |
|--------------------|--------------------------|------------------|-------------|
| <b>Date:</b>       | October 2010             | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Waste Management | 40 mil HDTPE     | 400,000 ft2 |
| <b>Location:</b>   | Southbridge, MA          |                  |             |
| <b>Consulting:</b> | Geosyntec Consultants    |                  |             |

---

---

**Project Title:** *Hyland Landfill Expansion - Cell 3C*

|                    |                                 |                  |             |
|--------------------|---------------------------------|------------------|-------------|
| <b>Date:</b>       | July 2010                       | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Hyland Landfill Facility Inc.   | 60 mil HDPE      | 200,000 ft2 |
| <b>Location:</b>   | Angelica, NY                    | Geotextile       | 100,000 ft2 |
| <b>Consulting:</b> | McMahon & Mann Engineering Inc. | GCL              | 60,000 ft2  |

---

---

**Project Title:** *Stoughton Landfill Closure*

|                    |                          |                  |             |
|--------------------|--------------------------|------------------|-------------|
| <b>Date:</b>       | October 2010             | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Stoughton Recycling LLC  | 40 mil HDTPE     | 200,000 ft2 |
| <b>Location:</b>   | Stoughton, MA            |                  |             |
| <b>Consulting:</b> | Green Seal Environmental |                  |             |

---

---

**Project Title:** *Range Resources - Impoundments*

|                    |                                |                  |               |
|--------------------|--------------------------------|------------------|---------------|
| <b>Date:</b>       | March - December 2010          | <b>Materials</b> | <b>Area</b>   |
| <b>Client:</b>     | New Dominion Construction Inc. | 40 mil LLDPE     | 3,000,000 ft2 |
| <b>Location:</b>   | Misc. Sites                    | Geotextile       | 1,400,000 ft2 |
| <b>Consulting:</b> | n/a                            |                  |               |

---

---

**Project Title:** *Talisman Energy - Impoundments*

|                    |                                |                  |               |
|--------------------|--------------------------------|------------------|---------------|
| <b>Date:</b>       | March - December 2010          | <b>Materials</b> | <b>Area</b>   |
| <b>Client:</b>     | New Dominion Construction Inc. | 40 mil HDPE      | 1,500,000 ft2 |
| <b>Location:</b>   | Misc. Sites                    | Geotextile       | 1,500,000 ft2 |
| <b>Consulting:</b> | n/a                            |                  |               |

---

---

**Project Title:** *Hyland Landfill Expansion - Cell 4A*

|                    |                                 |                  |             |
|--------------------|---------------------------------|------------------|-------------|
| <b>Date:</b>       | August - October 2011           | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Hyland Landfill Facility Inc.   | 60 mil HDTPE     | 550,000 ft2 |
| <b>Location:</b>   | Angelica, NY                    | Geotextile       | 270,000 ft2 |
| <b>Consulting:</b> | McMahon & Mann Engineering Inc. | GCL              | 100,000 ft2 |
|                    |                                 | Geocomposite     | 270,000 ft2 |

---

---

**Project Title:** *Hakes Landfill Expansion - Cell 5/6 ext & 7*

|                    |                                 |                  |             |
|--------------------|---------------------------------|------------------|-------------|
| <b>Date:</b>       | August 2011                     | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Hyland Landfill Facility Inc.   | 60 mil HTDPE     | 400,000 ft2 |
| <b>Location:</b>   | Campbell, NY                    | Geotextile       | 400,000 ft2 |
| <b>Consulting:</b> | McMahon & Mann Engineering Inc. |                  |             |

---

---

**Project Title:** *McKean Landfill Expansion - Cell 5/6 ext & 7*

|                    |                                 |                  |             |
|--------------------|---------------------------------|------------------|-------------|
| <b>Date:</b>       | October 2011                    | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Hyland Landfill Facility Inc.   | 60 mil HTDPE     | 220,000 ft2 |
| <b>Location:</b>   | Mount Jewett, PA                | Geotextile       | 110,000 ft2 |
| <b>Consulting:</b> | McMahon & Mann Engineering Inc. | GCL              | 110,000 ft2 |

---

---

**Project Title:** *Clinton County Landfill Closure - Phase 3 - Stage 2*

|                    |                                     |                  |             |
|--------------------|-------------------------------------|------------------|-------------|
| <b>Date:</b>       | July - September 2011               | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Waste Management            | 40 mil LLDTPE    | 450,000 ft2 |
| <b>Location:</b>   | Plattsburgh, NY                     | Geocomposite     | 450,000 ft2 |
| <b>Consulting:</b> | Barton & Loguidice Engineering Inc. |                  |             |

---

---

**Project Title:** *Southbridge Landfill Expansion - Cell 7.1B*



|                    |                          |                  |             |
|--------------------|--------------------------|------------------|-------------|
| <b>Date:</b>       | October 2011             | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Waste Management | 60 mil HDTPE     | 200,000 ft2 |
| <b>Location:</b>   | Southbridge, MA          | GCL              | 100,000 ft2 |
| <b>Consulting:</b> | Geosyntec Consultants    | Geocomposite     | 200,000 ft2 |

---

**Project Title:** *Elizabeth Mines Landfill Closure - TP-1A & TP-2B*

|                    |                              |                  |               |
|--------------------|------------------------------|------------------|---------------|
| <b>Date:</b>       | July - October 2011          | <b>Materials</b> | <b>Area</b>   |
| <b>Client:</b>     | Nobis Engineering Inc./USACE | 60 mil LLDTPE    | 1,000,000 ft2 |
| <b>Location:</b>   | South Strafford, VT          | Geocomposite     | 1,000,000 ft2 |
| <b>Consulting:</b> | USACE                        |                  |               |

---

**Project Title:** *Waste USA - Phase 4 - Cell 2C*

|                    |                            |                  |             |
|--------------------|----------------------------|------------------|-------------|
| <b>Date:</b>       | September 2011             | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Waste Inc.         | 60 mil HDTPE     | 400,000 ft2 |
| <b>Location:</b>   | Newport, VT                | Geocomposite     | 400,000 ft2 |
| <b>Consulting:</b> | Sanborn, Head & Associates | GCL              | 80,000 ft2  |

---

**Project Title:** *OMYA - Phase 1 - Cell 1B/Stage 1*

|                    |                            |                  |             |
|--------------------|----------------------------|------------------|-------------|
| <b>Date:</b>       | October 2011               | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Casella Construction Inc.  | 60 mil HDTPE     | 100,000 ft2 |
| <b>Location:</b>   | Florence, VT               | Geocomposite     | 100,000 ft2 |
| <b>Consulting:</b> | Sanborn, Head & Associates |                  |             |

---

**Project Title:** *Enerplus - Keating Impoundments*

|                    |                            |                  |             |
|--------------------|----------------------------|------------------|-------------|
| <b>Date:</b>       | December 2011 - March 2012 | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Enerplus Resources Corp.   | 60 mil HDTPE     | 500,000 ft2 |
| <b>Location:</b>   | Misc. Sites                | 40 mil HDTPE     | 300,000 ft2 |
| <b>Consulting:</b> | ARM Group Inc.             | Geotextile       | 600,000 ft2 |
|                    |                            | Geonet           | 130,000 ft2 |

---

**Project Title:** *Range Resources - Impoundments*

|                    |                                |                  |               |
|--------------------|--------------------------------|------------------|---------------|
| <b>Date:</b>       | March - December 2011          | <b>Materials</b> | <b>Area</b>   |
| <b>Client:</b>     | New Dominion Construction Inc. | 40 mil LLDPE     | 1,000,000 ft2 |
| <b>Location:</b>   | Misc. Sites                    | Geotextile       | 1,000,000 ft2 |
| <b>Consulting:</b> | n/a                            |                  |               |

---

**Project Title:** *Talisman Energy - Impoundments*

|                    |                      |                  |             |
|--------------------|----------------------|------------------|-------------|
| <b>Date:</b>       | July - August 2011   | <b>Materials</b> | <b>Area</b> |
| <b>Client:</b>     | Talisman Energy Inc. | 40 mil HDTPE     | 400,000 ft2 |
| <b>Location:</b>   | Misc. Sites          | Geotextile       | 400,000 ft2 |
| <b>Consulting:</b> | n/a                  |                  |             |

## SUMMARY OF INSTALLED PRODUCTS

|              |                |               |                |
|--------------|----------------|---------------|----------------|
| 30 mil HDPE  | 480,000 ft2    | 40 mil LLDPE  | 4,000,000 ft2  |
| 40 mil HDPE  | 3,855,000 ft2  | 40 mil LLDTPE | 9,425,000 ft2  |
| 40 mil HDTPE | 17,100,000 ft2 | 60 mil LLDTPE | 1,000,000 ft2  |
| 60 mil HDPE  | 2,532,000 ft2  | 40 mil PVC    | 1,500,000 ft2  |
| 60 mil HDTPE | 23,325,000 ft2 | Geocomposite  | 33,295,000 ft2 |
| 80 mil HDPE  | 1,170,000 ft2  | GCL           | 10,545,000 ft2 |
| 80 mil HDTPE | 1,950,000 ft2  | Geotextile    | 20,325,000 ft2 |
| 100 mil HDPE | 2,490,000 ft2  | Geonet        | 4,920,000 ft2  |

# terrafix<sup>®</sup>

## environmental U.S.A. inc.

P.O. Box 367, 34 Court Street Auburn, Maine 04212 U.S.A. Tel: (207) 786-6808 Fax: (207) 786-6835

### *ADALBERTO AGUILAR ~ TECHNICIAN*

#### *INSTALLATION REFERENCES*

| YEAR | PROJECT                 | PRODUCT                              | QUANTITY                                           | LOCATION         |
|------|-------------------------|--------------------------------------|----------------------------------------------------|------------------|
| 2001 | LANDFILL CLOSURE        | 40 MIL LLDTPPE                       | 700,000 FT <sup>2</sup>                            | MONTPELIER, VT   |
| 2001 | LANDFILL CLOSURE        | 40 MIL LLDTPPE                       | 150,000 FT <sup>2</sup>                            | NEWBURY, VT      |
| 2001 | LANDFILL CLOSURE        | 60 MIL HDTPE                         | 160,000 FT <sup>2</sup>                            | PLATTSBURGH, NY  |
| 2001 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 400,000 FT <sup>2</sup>                            | CLAREMONT, NH    |
| 2001 | LANDFILL EXPANSION      | 100 MIL HDTPE                        | 1,000,000 FT <sup>2</sup>                          | WILLIAMSPORT, PA |
| 2002 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 1,800,000 FT <sup>2</sup>                          | WOBURN, MA       |
| 2002 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 450,000 FT <sup>2</sup>                            | AYER, MA         |
| 2002 | LANDFILL CLOSURE        | 40 MIL LLDTPPE                       | 200,000 FT <sup>2</sup>                            | PLYMOUTH, NH     |
| 2002 | WWTP LAGOON             | 40 MIL HDTPE                         | 120,000 FT <sup>2</sup>                            | BRENTWOOD, NH    |
| 2003 | LANDFILL CLOSURE        | 40 MIL LLDTPPE<br>60 MIL HDPE (COND) | 500,000 FT <sup>2</sup><br>100,000 FT <sup>2</sup> | JAMESTOWN, NY    |
| 2003 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 100,000 FT <sup>2</sup>                            | FITCHBURG, MA    |
| 2003 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 400,000 FT <sup>2</sup>                            | BROCKTON, MA     |
| 2003 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 300,000 FT <sup>2</sup>                            | NASHUA, NH       |
| 2003 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 350,000 FT <sup>2</sup>                            | READING, MA      |
| 2004 | LANDFILL CLOSURE (PH 2) | 40 MIL HDTPE                         | 800,000 FT <sup>2</sup>                            | READING, MA      |
| 2004 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 650,000 FT <sup>2</sup>                            | LEBANON, NH      |
| 2004 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 1,150,000 FT <sup>2</sup>                          | SENECA, NY       |
| 2005 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 400,000 FT <sup>2</sup>                            | SOUTHBRIDGE, MA  |
| 2005 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 700,000 FT <sup>2</sup>                            | NEWPORT, VT      |
| 2005 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 700,000 FT <sup>2</sup>                            | ORLEANS, MA      |
| 2005 | LANDFILL CLOSURE        | 40 MIL LLDTPPE                       | 300,000 FT <sup>2</sup>                            | WELLFLEET, MA    |
| 2006 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 500,000 FT <sup>2</sup>                            | PLATTSBURGH, NY  |
| 2006 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 350,000 FT <sup>2</sup>                            | BETHLEHEM, NH    |
| 2006 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 220,000 FT <sup>2</sup>                            | STOUGHTON, MA    |
| 2007 | LANDFILL CLOSURE        | 40 MIL LLDTPPE                       | 250,000 FT <sup>2</sup>                            | AUBURN, NY       |

|      |                                 |                |                           |                 |
|------|---------------------------------|----------------|---------------------------|-----------------|
| 2007 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 400,000 FT <sup>2</sup>   | SOUTHBRIDGE, MA |
| 2007 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 800,000 FT <sup>2</sup>   | STANLEY, NY     |
| 2007 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 650,000 FT <sup>2</sup>   | NEWPORT, VT     |
| 2007 | LANDFILL CLOSURE                | 40 MIL HDTPE   | 300,000 FT <sup>2</sup>   | COLEBROOK, NH   |
| 2008 | LANDFILL CLOSURE                | 40 MIL HDTPE   | 750,000 FT <sup>2</sup>   | HARDWICK, MA    |
| 2008 | LANDFILL CLOSURE                | 40 MIL LLDTPPE | 750,000 FT <sup>2</sup>   | FORT DRUM, NY   |
| 2008 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 500,000 FT <sup>2</sup>   | CONSTABLE, NY   |
| 2008 | LANDFILL CLOSURE                | 40 MIL HDTPE   | 450,000 FT <sup>2</sup>   | CHARLTON, MA    |
| 2009 | LANDFILL CLOSURE                | 40 MIL HDTPE   | 400,000 FT <sup>2</sup>   | COLEBROOK, NH   |
| 2009 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 240,000 FT <sup>2</sup>   | SOUTHBRIDGE, MA |
| 2009 | LANDFILL CLOSURE<br>(TEMPORARY) | 30 MIL HDPE    | 480,000 FT <sup>2</sup>   | BOURNE, MA      |
| 2010 | LANDFILL CLOSURE                | 40 MIL LLDTPPE | 1,300,000 FT <sup>2</sup> | PLATTSBURGH, NY |
| 2010 | LANDFILL CLOSURE                | 40 MIL HDTPE   | 550,000 FT <sup>2</sup>   | WORCESTER, MA   |
| 2010 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 700,000 FT <sup>2</sup>   | PLATTSBURGH, NY |
| 2010 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 300,000 FT <sup>2</sup>   | NEWPORT, VT     |
| 2010 | LANDFILL CLOSURE                | 40 MIL HDTPE   | 230,000 FT <sup>2</sup>   | PLATTSBURGH, NY |
| 2011 | LANDFILL CLOSURE                | 40 MIL LLDTPPE | 450,000 FT <sup>2</sup>   | PLATTSBURGH, NY |
| 2011 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 400,000 FT <sup>2</sup>   | NEWPORT, VT     |
| 2011 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 100,000 FT <sup>2</sup>   | FLORENCE, VT    |
| 2011 | MISC PONDS                      | 60 MIL HDTPE   | 500,000 FT <sup>2</sup>   | EMPORIUM, PA    |

# terrafix<sup>®</sup>

## environmental U.S.A. inc.

P.O. Box 367, 34 Court Street Auburn, Maine 04212 U.S.A. Tel: (207) 786-6808 Fax: (207) 786-6835

### ***KIM CHHIM ~ TECHNICIAN***

#### ***INSTALLATION REFERENCES***

| YEAR | PROJECT            | PRODUCT                    | QUANTITY                                         | LOCATION        |
|------|--------------------|----------------------------|--------------------------------------------------|-----------------|
| 2004 | LANDFILL CLOSURE   | 40 MIL LLDTPPE             | 500,000 FT <sup>2</sup>                          | NEW BEDFORD, MA |
| 2004 | LANDFILL CLOSURE   | 40 MIL HDTPE               | 360,000 FT <sup>2</sup>                          | CARVER, MA      |
| 2004 | LANDFILL CLOSURE   | 40 MIL LLDTPPE             | 850,000 FT <sup>2</sup>                          | CHEEKTOWAGA, NY |
| 2005 | LANDFILL EXPANSION | 60 MIL HDTPE               | 1,200,000 FT <sup>2</sup>                        | SENECA, NY      |
| 2005 | POND               | 40 MIL HDTPE               | 120,000 FT <sup>2</sup>                          | HOLLIS, ME      |
| 2005 | LANDFILL EXPANSION | 60 MIL HDTPE               | 200,000 FT <sup>2</sup>                          | SPRINGFIELD, MA |
| 2006 | LANDFILL CLOSURE   | 40 MIL HDTPE               | 700,000 FT <sup>2</sup>                          | BROCKTON, MA    |
| 2006 | LANDFILL EXPANSION | 80 MIL HDTPE               | 150,000 FT <sup>2</sup>                          | FRANKLIN, NH    |
| 2006 | LANDFILL CLOSURE   | 40 MIL HDTPE               | 400,000 FT <sup>2</sup>                          | SOUTHBRIDGE, MA |
| 2006 | LANDFILL EXPANSION | 60 MIL HDTPE               | 600,000 FT <sup>2</sup>                          | ELMIRA, NH      |
| 2006 | LANDFILL CLOSURE   | 40 MIL HDTPE               | 120,000 FT <sup>2</sup>                          | MILLVILLE, MA   |
| 2007 | LANDFILL EXPANSION | 60 MIL HDTPE               | 280,000 FT <sup>2</sup>                          | CAMPBELL, NY    |
| 2007 | LANDFILL EXPANSION | 60 MIL HDTPE               | 850,000 FT <sup>2</sup>                          | ANGELICA, NY    |
| 2007 | LANDFILL EXPANSION | 60 MIL HDPE<br>80 MIL HDPE | 60,000 FT <sup>2</sup><br>60,000 FT <sup>2</sup> | NANTUCKET, MA   |
| 2008 | LANDFILL EXPANSION | 60 MIL HDTPE               | 230,000 FT <sup>2</sup>                          | BETHLEHEM, NH   |
| 2008 | LANDFILL EXPANSION | 60 MIL HDTPE               | 1,300,000 FT <sup>2</sup>                        | NASHUA, NH      |
| 2009 | LANDFILL EXPANSION | 60 MIL HDTPE               | 700,000 FT <sup>2</sup>                          | SENECA, NY      |
| 2010 | LANDFILL EXPANSION | 60 MIL HDTPE               | 530,000 FT <sup>2</sup>                          | SENECA, NY      |
| 2010 | LANDFILL EXPANSION | 60 MIL HDTPE               | 420,000 FT <sup>2</sup>                          | ELMIRA, NY      |
| 2010 | LANDFILL CLOSURE   | 40 MIL HDTPE               | 400,000 FT <sup>2</sup>                          | SOUTHBRIDGE, MA |
| 2010 | MISC PONDS         | 40 MIL LLDPE               | 2,200,000 FT <sup>2</sup>                        | WASHINGTON, PA  |
| 2011 | LANDFILL EXPANSION | 60 MIL HDTPE               | 550,000 FT <sup>2</sup>                          | ANGELICA, NY    |
| 2011 | LANDFILL EXPANSION | 60 MIL HDTPE               | 400,000 FT <sup>2</sup>                          | CAMPBELL, NY    |
| 2011 | LANDFILL EXPANSION | 60 MIL HDTPE               | 220,000 FT <sup>2</sup>                          | MT JEWETT, PA   |

|      |                    |              |                         |                 |
|------|--------------------|--------------|-------------------------|-----------------|
| 2011 | LANDFILL EXPANSION | 60 MIL HDTPE | 200,000 FT <sup>2</sup> | SOUTHBRIDGE, MA |
| 2011 | MISC PONDS         | 40 MIL LLDPE | 600,000 FT <sup>2</sup> | WASHINGTON, PA  |
| 2011 | MISC PONDS         | 40 MIL HDTPE | 400,000 FT <sup>2</sup> | KANE, PA        |

# terrafix<sup>®</sup>

## environmental U.S.A. inc.

P.O. Box 367, 34 Court Street Auburn, Maine 04212 U.S.A. Tel: (207) 786-6808 Fax: (207) 786-6835

### *THAVONE CHANTHANOUVONG ~ TECHNICIAN*

#### *INSTALLATION REFERENCES*

| YEAR | PROJECT                 | PRODUCT                              | QUANTITY                                           | LOCATION         |
|------|-------------------------|--------------------------------------|----------------------------------------------------|------------------|
| 2001 | LANDFILL CLOSURE        | 40 MIL LLDTPPE<br>60Z GEOCOMPOSITE   | 700,000 FT <sup>2</sup>                            | MONTPELIER, VT   |
| 2001 | LANDFILL CLOSURE        | 40 MIL LLDTPPE<br>60Z GEOCOMPOSITE   | 150,000 FT <sup>2</sup>                            | NEWBURY, VT      |
| 2001 | LANDFILL CLOSURE        | 60 MIL HDTPE                         | 160,000 FT <sup>2</sup>                            | PLATTSBURGH, NY  |
| 2001 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 400,000 FT <sup>2</sup>                            | CLAREMONT, NH    |
| 2001 | LANDFILL EXPANSION      | 100 MIL HDTPE                        | 1,000,000 FT <sup>2</sup>                          | WILLIAMSPORT, PA |
| 2002 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 1,800,000 FT <sup>2</sup>                          | WOBURN, MA       |
| 2002 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 450,000 FT <sup>2</sup>                            | AYER, MA         |
| 2002 | LANDFILL CLOSURE        | 40 MIL LLDTPPE                       | 200,000 FT <sup>2</sup>                            | PLYMOUTH, NH     |
| 2002 | WWTP LAGOON             | 40 MIL HDTPE                         | 120,000 FT <sup>2</sup>                            | BRENTWOOD, NH    |
| 2003 | LANDFILL CLOSURE        | 40 MIL LLDTPPE<br>60 MIL HDPE (COND) | 500,000 FT <sup>2</sup><br>100,000 FT <sup>2</sup> | JAMESTOWN, NY    |
| 2003 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 100,000 FT <sup>2</sup>                            | FITCHBURG, MA    |
| 2003 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 400,000 FT <sup>2</sup>                            | BROCKTON, MA     |
| 2003 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 300,000 FT <sup>2</sup>                            | NASHUA, NH       |
| 2003 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 350,000 FT <sup>2</sup>                            | READING, MA      |
| 2004 | LANDFILL CLOSURE (PH 2) | 40 MIL HDTPE                         | 800,000 FT <sup>2</sup>                            | READING, MA      |
| 2004 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 650,000 FT <sup>2</sup>                            | LEBANON, NH      |
| 2004 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 1,150,000 FT <sup>2</sup>                          | SENECA, NY       |
| 2005 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 400,000 FT <sup>2</sup>                            | SOUTHBRIDGE, MA  |
| 2005 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 700,000 FT <sup>2</sup>                            | NEWPORT, VT      |
| 2005 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 700,000 FT <sup>2</sup>                            | ORLEANS, MA      |
| 2005 | LANDFILL CLOSURE        | 40 MIL LLDTPPE                       | 300,000 FT <sup>2</sup>                            | WELLFLEET, MA    |
| 2006 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 500,000 FT <sup>2</sup>                            | PLATTSBURGH, NY  |
| 2006 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 350,000 FT <sup>2</sup>                            | BETHLEHEM, NH    |
| 2006 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 220,000 FT <sup>2</sup>                            | STOUGHTON, MA    |

|      |                                 |               |                           |                 |
|------|---------------------------------|---------------|---------------------------|-----------------|
| 2007 | LANDFILL CLOSURE                | 40 MIL LLDTPE | 250,000 FT <sup>2</sup>   | AUBURN, NY      |
| 2007 | LANDFILL EXPANSION              | 60 MIL HDTPE  | 400,000 FT <sup>2</sup>   | SOUTHBRIDGE, MA |
| 2007 | LANDFILL EXPANSION              | 60 MIL HDTPE  | 800,000 FT <sup>2</sup>   | STANLEY, NY     |
| 2007 | LANDFILL EXPANSION              | 60 MIL HDTPE  | 650,000 FT <sup>2</sup>   | NEWPORT, VT     |
| 2007 | LANDFILL CLOSURE                | 40 MIL HDTPE  | 300,000 FT <sup>2</sup>   | COLEBROOK, NH   |
| 2008 | LANDFILL CLOSURE                | 40 MIL HDTPE  | 750,000 FT <sup>2</sup>   | HARDWICK, MA    |
| 2008 | LANDFILL CLOSURE                | 40 MIL LLDTPE | 750,000 FT <sup>2</sup>   | FORT DRUM, NY   |
| 2008 | LANDFILL EXPANSION              | 60 MIL HDTPE  | 500,000 FT <sup>2</sup>   | CONSTABLE, NY   |
| 2008 | LANDFILL CLOSURE                | 40 MIL HDTPE  | 450,000 FT <sup>2</sup>   | CHARLTON, MA    |
| 2009 | LANDFILL CLOSURE                | 40 MIL HDTPE  | 400,000 FT <sup>2</sup>   | COLEBROOK, NH   |
| 2009 | LANDFILL EXPANSION              | 60 MIL HDTPE  | 240,000 FT <sup>2</sup>   | SOUTHBRIDGE, MA |
| 2009 | LANDFILL CLOSURE<br>(TEMPORARY) | 30 MIL HDPE   | 480,000 FT <sup>2</sup>   | BOURNE, MA      |
| 2010 | LANDFILL CLOSURE                | 40 MIL LLDTPE | 1,300,000 FT <sup>2</sup> | PLATTSBURGH, NY |
| 2010 | LANDFILL CLOSURE                | 40 MIL HDTPE  | 550,000 FT <sup>2</sup>   | WORCESTER, MA   |
| 2010 | LANDFILL EXPANSION              | 60 MIL HDTPE  | 700,000 FT <sup>2</sup>   | PLATTSBURGH, NY |
| 2010 | LANDFILL EXPANSION              | 60 MIL HDTPE  | 300,000 FT <sup>2</sup>   | NEWPORT, VT     |
| 2010 | LANDFILL CLOSURE                | 40 MIL HDTPE  | 230,000 FT <sup>2</sup>   | PLATTSBURGH, NY |
| 2011 | LANDFILL CLOSURE                | 40 MIL LLDTPE | 450,000 FT <sup>2</sup>   | PLATTSBURGH, NY |
| 2011 | LANDFILL EXPANSION              | 60 MIL HDTPE  | 400,000 FT <sup>2</sup>   | NEWPORT, VT     |
| 2011 | LANDFILL EXPANSION              | 60 MIL HDTPE  | 100,000 FT <sup>2</sup>   | FLORENCE, VT    |
| 2011 | MISC PONDS                      | 60 MIL HDTPE  | 500,000 FT <sup>2</sup>   | EMPORIUM, PA    |

# **terrafix<sup>®</sup>**

## **environmental U.S.A. inc.**

P.O. Box 367, 34 Court Street Auburn, Maine 04212 U.S.A. Tel: (207) 786-6808 Fax: (207) 786-6835

### ***TWATCHAI GREENBERGER ~ TECHNICIAN/MASTER SEAMER***

#### ***INSTALLATION REFERENCES***

| <b>YEAR</b> | <b>PROJECT</b>     | <b>PRODUCT</b> | <b>QUANTITY</b>           | <b>LOCATION</b>     |
|-------------|--------------------|----------------|---------------------------|---------------------|
| 2008        | LANDFILL EXPANSION | 60 MIL HDTPE   | 250,000 FT <sup>2</sup>   | CAMPBELL, NY        |
| 2008        | LANDFILL EXPANSION | 60 MIL HDTPE   | 200,000 FT <sup>2</sup>   | ANGELICA, NY        |
| 2008        | LANDFILL CLOSURE   | 40 MIL HDTPE   | 250,000 FT <sup>2</sup>   | COLEBROOK, NH       |
| 2008        | LANDFILL EXPANSION | 60 MIL HDTPE   | 450,000 FT <sup>2</sup>   | BOURNE, MA          |
| 2009        | LANDFILL CLOSURE   | 40 MIL LLDTPPE | 700,000 FT <sup>2</sup>   | CAMPBELL, NY        |
| 2009        | LANDFILL EXPANSION | 60 MIL HDTPE   | 550,000 FT <sup>2</sup>   | NEWPORT, VT         |
| 2010        | LANDFILL EXPANSION | 60 MIL HDTPE   | 200,000 FT <sup>2</sup>   | ANGELICA, NY        |
| 2010        | LANDFILL CLOSURE   | 40 MIL HDTPE   | 200,000 FT <sup>2</sup>   | STOUGHTON, MA       |
| 2010        | MISC PONDS         | 40 MIL LLDPE   | 800,000 FT <sup>2</sup>   | WASHINGTON, PA      |
| 2010        | MISC PONDS         | 40 MIL HDPE    | 1,500,000 FT <sup>2</sup> | WILLIAMSPORT, PA    |
| 2011        | LANDFILL CLOSURE   | 60 MIL LLDTPPE | 1,000,000 FT <sup>2</sup> | SOUTH STRAFFORD, VT |
| 2011        | MISC PONDS         | 40 MIL LLDPE   | 600,000 FT <sup>2</sup>   | WASHINGTON, PA      |
| 2011        | MISC PONDS         | 40 MIL HDTPE   | 400,000 FT <sup>2</sup>   | KANE, PA            |



# terrafix<sup>®</sup>

## environmental U.S.A. inc.

P.O. Box 367, 34 Court Street Auburn, Maine 04212 U.S.A. Tel: (207) 786-6808 Fax: (207) 786-6835

### *LIONEL JACKSON ~ TECHNICIAN*

#### *INSTALLATION REFERENCES*

| YEAR | PROJECT                 | PRODUCT                              | QUANTITY                                           | LOCATION         |
|------|-------------------------|--------------------------------------|----------------------------------------------------|------------------|
| 2001 | LANDFILL CLOSURE        | 40 MIL LLDTPPE<br>60Z GEOCOMPOSITE   | 700,000 FT <sup>2</sup>                            | MONTPELIER, VT   |
| 2001 | LANDFILL CLOSURE        | 40 MIL LLDTPPE<br>60Z GEOCOMPOSITE   | 150,000 FT <sup>2</sup>                            | NEWBURY, VT      |
| 2001 | LANDFILL CLOSURE        | 60 MIL HDTPE                         | 160,000 FT <sup>2</sup>                            | PLATTSBURGH, NY  |
| 2001 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 400,000 FT <sup>2</sup>                            | CLAREMONT, NH    |
| 2001 | LANDFILL EXPANSION      | 100 MIL HDTPE                        | 1,000,000 FT <sup>2</sup>                          | WILLIAMSPORT, PA |
| 2002 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 1,800,000 FT <sup>2</sup>                          | WOBURN, MA       |
| 2002 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 450,000 FT <sup>2</sup>                            | AYER, MA         |
| 2002 | LANDFILL CLOSURE        | 40 MIL LLDTPPE                       | 200,000 FT <sup>2</sup>                            | PLYMOUTH, NH     |
| 2002 | WWTP LAGOON             | 40 MIL HDTPE                         | 120,000 FT <sup>2</sup>                            | BRENTWOOD, NH    |
| 2003 | LANDFILL CLOSURE        | 40 MIL LLDTPPE<br>60 MIL HDPE (COND) | 500,000 FT <sup>2</sup><br>100,000 FT <sup>2</sup> | JAMESTOWN, NY    |
| 2003 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 100,000 FT <sup>2</sup>                            | FITCHBURG, MA    |
| 2003 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 400,000 FT <sup>2</sup>                            | BROCKTON, MA     |
| 2003 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 300,000 FT <sup>2</sup>                            | NASHUA, NH       |
| 2003 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 350,000 FT <sup>2</sup>                            | READING, MA      |
| 2004 | LANDFILL CLOSURE (PH 2) | 40 MIL HDTPE                         | 800,000 FT <sup>2</sup>                            | READING, MA      |
| 2004 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 650,000 FT <sup>2</sup>                            | LEBANON, NH      |
| 2004 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 1,150,000 FT <sup>2</sup>                          | SENECA, NY       |
| 2005 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 400,000 FT <sup>2</sup>                            | SOUTHBRIDGE, MA  |
| 2005 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 700,000 FT <sup>2</sup>                            | NEWPORT, VT      |
| 2005 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 700,000 FT <sup>2</sup>                            | ORLEANS, MA      |
| 2005 | LANDFILL CLOSURE        | 40 MIL LLDTPPE                       | 300,000 FT <sup>2</sup>                            | WELLFLEET, MA    |
| 2006 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 500,000 FT <sup>2</sup>                            | PLATTSBURGH, NY  |
| 2006 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 350,000 FT <sup>2</sup>                            | BETHLEHEM, NH    |
| 2006 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 220,000 FT <sup>2</sup>                            | STOUGHTON, MA    |

|      |                                 |               |                           |                 |
|------|---------------------------------|---------------|---------------------------|-----------------|
| 2007 | LANDFILL CLOSURE                | 40 MIL LLDTPE | 250,000 FT <sup>2</sup>   | AUBURN, NY      |
| 2007 | LANDFILL EXPANSION              | 60 MIL HDTPE  | 400,000 FT <sup>2</sup>   | SOUTHBRIDGE, MA |
| 2007 | LANDFILL EXPANSION              | 60 MIL HDTPE  | 800,000 FT <sup>2</sup>   | STANLEY, NY     |
| 2007 | LANDFILL EXPANSION              | 60 MIL HDTPE  | 650,000 FT <sup>2</sup>   | NEWPORT, VT     |
| 2007 | LANDFILL CLOSURE                | 40 MIL HDTPE  | 300,000 FT <sup>2</sup>   | COLEBROOK, NH   |
| 2008 | LANDFILL CLOSURE                | 40 MIL HDTPE  | 750,000 FT <sup>2</sup>   | HARDWICK, MA    |
| 2008 | LANDFILL CLOSURE                | 40 MIL LLDTPE | 750,000 FT <sup>2</sup>   | FORT DRUM, NY   |
| 2008 | LANDFILL EXPANSION              | 60 MIL HDTPE  | 500,000 FT <sup>2</sup>   | CONSTABLE, NY   |
| 2008 | LANDFILL CLOSURE                | 40 MIL HDTPE  | 450,000 FT <sup>2</sup>   | CHARLTON, MA    |
| 2009 | LANDFILL CLOSURE                | 40 MIL HDTPE  | 400,000 FT <sup>2</sup>   | COLEBROOK, NH   |
| 2009 | LANDFILL EXPANSION              | 60 MIL HDTPE  | 240,000 FT <sup>2</sup>   | SOUTHBRIDGE, MA |
| 2009 | LANDFILL CLOSURE<br>(TEMPORARY) | 30 MIL HDPE   | 480,000 FT <sup>2</sup>   | BOURNE, MA      |
| 2010 | LANDFILL CLOSURE                | 40 MIL LLDTPE | 1,300,000 FT <sup>2</sup> | PLATTSBURGH, NY |
| 2010 | LANDFILL CLOSURE                | 40 MIL HDTPE  | 550,000 FT <sup>2</sup>   | WORCESTER, MA   |
| 2010 | LANDFILL EXPANSION              | 60 MIL HDTPE  | 700,000 FT <sup>2</sup>   | PLATTSBURGH, NY |
| 2010 | LANDFILL EXPANSION              | 60 MIL HDTPE  | 300,000 FT <sup>2</sup>   | NEWPORT, VT     |
| 2010 | LANDFILL CLOSURE                | 40 MIL HDTPE  | 230,000 FT <sup>2</sup>   | PLATTSBURGH, NY |
| 2011 | LANDFILL CLOSURE                | 40 MIL LLDTPE | 450,000 FT <sup>2</sup>   | PLATTSBURGH, NY |
| 2011 | LANDFILL EXPANSION              | 60 MIL HDTPE  | 400,000 FT <sup>2</sup>   | NEWPORT, VT     |
| 2011 | LANDFILL EXPANSION              | 60 MIL HDTPE  | 100,000 FT <sup>2</sup>   | FLORENCE, VT    |
| 2011 | MISC PONDS                      | 60 MIL HDTPE  | 500,000 FT <sup>2</sup>   | EMPORIUM, PA    |

# terrafix<sup>®</sup>

## environmental U.S.A. inc.

P.O. Box 367, 34 Court Street Auburn, Maine 04212 U.S.A. Tel: (207) 786-6808 Fax: (207) 786-6835

### *VIENGSAVANH KETSATHA ~ TECHNICIAN*

#### *INSTALLATION REFERENCES*

| YEAR | PROJECT                 | PRODUCT                              | QUANTITY                                           | LOCATION         |
|------|-------------------------|--------------------------------------|----------------------------------------------------|------------------|
| 2001 | LANDFILL CLOSURE        | 40 MIL LLDTPPE<br>60Z GEOCOMPOSITE   | 700,000 FT <sup>2</sup>                            | MONTPELIER, VT   |
| 2001 | LANDFILL CLOSURE        | 40 MIL LLDTPPE<br>60Z GEOCOMPOSITE   | 150,000 FT <sup>2</sup>                            | NEWBURY, VT      |
| 2001 | LANDFILL CLOSURE        | 60 MIL HDTPE                         | 160,000 FT <sup>2</sup>                            | PLATTSBURGH, NY  |
| 2001 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 400,000 FT <sup>2</sup>                            | CLAREMONT, NH    |
| 2001 | LANDFILL EXPANSION      | 100 MIL HDTPE                        | 1,000,000 FT <sup>2</sup>                          | WILLIAMSPORT, PA |
| 2002 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 1,800,000 FT <sup>2</sup>                          | WOBURN, MA       |
| 2002 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 450,000 FT <sup>2</sup>                            | AYER, MA         |
| 2002 | LANDFILL CLOSURE        | 40 MIL LLDTPPE                       | 200,000 FT <sup>2</sup>                            | PLYMOUTH, NH     |
| 2002 | WWTP LAGOON             | 40 MIL HDTPE                         | 120,000 FT <sup>2</sup>                            | BRENTWOOD, NH    |
| 2003 | LANDFILL CLOSURE        | 40 MIL LLDTPPE<br>60 MIL HDPE (COND) | 500,000 FT <sup>2</sup><br>100,000 FT <sup>2</sup> | JAMESTOWN, NY    |
| 2003 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 100,000 FT <sup>2</sup>                            | FITCHBURG, MA    |
| 2003 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 400,000 FT <sup>2</sup>                            | BROCKTON, MA     |
| 2003 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 300,000 FT <sup>2</sup>                            | NASHUA, NH       |
| 2003 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 350,000 FT <sup>2</sup>                            | READING, MA      |
| 2004 | LANDFILL CLOSURE (PH 2) | 40 MIL HDTPE                         | 800,000 FT <sup>2</sup>                            | READING, MA      |
| 2004 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 650,000 FT <sup>2</sup>                            | LEBANON, NH      |
| 2004 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 1,150,000 FT <sup>2</sup>                          | SENECA, NY       |
| 2005 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 400,000 FT <sup>2</sup>                            | SOUTHBRIDGE, MA  |
| 2005 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 700,000 FT <sup>2</sup>                            | NEWPORT, VT      |
| 2005 | LANDFILL CLOSURE        | 40 MIL HDTPE                         | 700,000 FT <sup>2</sup>                            | ORLEANS, MA      |
| 2005 | LANDFILL CLOSURE        | 40 MIL LLDTPPE                       | 300,000 FT <sup>2</sup>                            | WELLFLEET, MA    |
| 2006 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 500,000 FT <sup>2</sup>                            | PLATTSBURGH, NY  |
| 2006 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 350,000 FT <sup>2</sup>                            | BETHLEHEM, NH    |
| 2007 | LANDFILL CLOSURE        | 40 MIL LLDTPPE                       | 250,000 FT <sup>2</sup>                            | AUBURN, NY       |
| 2007 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 400,000 FT <sup>2</sup>                            | SOUTHBRIDGE, MA  |
| 2007 | LANDFILL EXPANSION      | 60 MIL HDTPE                         | 800,000 FT <sup>2</sup>                            | STANLEY, NY      |

|      |                                 |                |                           |                 |
|------|---------------------------------|----------------|---------------------------|-----------------|
| 2007 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 650,000 FT <sup>2</sup>   | NEWPORT, VT     |
| 2007 | LANDFILL CLOSURE                | 40 MIL HDTPE   | 300,000 FT <sup>2</sup>   | COLEBROOK, NH   |
| 2008 | LANDFILL CLOSURE                | 40 MIL HDTPE   | 750,000 FT <sup>2</sup>   | HARDWICK, MA    |
| 2008 | LANDFILL CLOSURE                | 40 MIL LLDTPPE | 750,000 FT <sup>2</sup>   | FORT DRUM, NY   |
| 2008 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 500,000 FT <sup>2</sup>   | CONSTABLE, NY   |
| 2008 | LANDFILL CLOSURE                | 40 MIL HDTPE   | 450,000 FT <sup>2</sup>   | CHARLTON, MA    |
| 2009 | LANDFILL CLOSURE                | 40 MIL HDTPE   | 400,000 FT <sup>2</sup>   | COLEBROOK, NH   |
| 2009 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 240,000 FT <sup>2</sup>   | SOUTHBRIDGE, MA |
| 2009 | LANDFILL CLOSURE<br>(TEMPORARY) | 30 MIL HDPE    | 480,000 FT <sup>2</sup>   | BOURNE, MA      |
| 2010 | LANDFILL CLOSURE                | 40 MIL LLDTPPE | 1,300,000 FT <sup>2</sup> | PLATTSBURGH, NY |
| 2010 | LANDFILL CLOSURE                | 40 MIL HDTPE   | 550,000 FT <sup>2</sup>   | WORCESTER, MA   |
| 2010 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 700,000 FT <sup>2</sup>   | PLATTSBURGH, NY |
| 2010 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 300,000 FT <sup>2</sup>   | NEWPORT, VT     |
| 2010 | LANDFILL CLOSURE                | 40 MIL HDTPE   | 230,000 FT <sup>2</sup>   | PLATTSBURGH, NY |
| 2011 | LANDFILL CLOSURE                | 40 MIL LLDTPPE | 450,000 FT <sup>2</sup>   | PLATTSBURGH, NY |
| 2011 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 400,000 FT <sup>2</sup>   | NEWPORT, VT     |
| 2011 | LANDFILL EXPANSION              | 60 MIL HDTPE   | 100,000 FT <sup>2</sup>   | FLORENCE, VT    |
| 2011 | MISC PONDS                      | 60 MIL HDTPE   | 500,000 FT <sup>2</sup>   | EMPORIUM, PA    |

# **terrafix<sup>®</sup>**

## **environmental U.S.A. inc.**

P.O. Box 367, 34 Court Street Auburn, Maine 04212 U.S.A. Tel: (207) 786-6808 Fax: (207) 786-6835

### ***THONGSAY KHAMSA DA ~ TECHNICIAN***

#### ***INSTALLATION REFERENCES***

#### **GEOMEMBRANE PROJECTS**

| <b>YEAR</b> | <b>PROJECT</b>     | <b>PRODUCT</b> | <b>QUANTITY</b>           | <b>LOCATION</b>     |
|-------------|--------------------|----------------|---------------------------|---------------------|
| 2005        | LANDFILL EXPANSION | 60 MIL HDTPE   | 400,000 FT <sup>2</sup>   | SOUTHBRIDGE, MA     |
| 2005        | LANDFILL EXPANSION | 60 MIL HDTPE   | 700,000 FT <sup>2</sup>   | NEWPORT, VT         |
| 2005        | LANDFILL CLOSURE   | 40 MIL HDTPE   | 700,000 FT <sup>2</sup>   | ORLEANS, MA         |
| 2005        | LANDFILL CLOSURE   | 40 MIL LLDTPPE | 300,000 FT <sup>2</sup>   | WELLFLEET, MA       |
| 2006        | LANDFILL EXPANSION | 60 MIL HDTPE   | 500,000 FT <sup>2</sup>   | PLATTSBURGH, NY     |
| 2006        | LANDFILL EXPANSION | 60 MIL HDTPE   | 350,000 FT <sup>2</sup>   | BETHLEHEM, NH       |
| 2007        | LANDFILL CLOSURE   | 40 MIL LLDTPPE | 250,000 FT <sup>2</sup>   | AUBURN, NY          |
| 2007        | LANDFILL EXPANSION | 60 MIL HDTPE   | 400,000 FT <sup>2</sup>   | SOUTHBRIDGE, MA     |
| 2007        | LANDFILL EXPANSION | 60 MIL HDTPE   | 800,000 FT <sup>2</sup>   | STANLEY, NY         |
| 2007        | LANDFILL EXPANSION | 60 MIL HDTPE   | 650,000 FT <sup>2</sup>   | NEWPORT, VT         |
| 2007        | LANDFILL CLOSURE   | 40 MIL HDTPE   | 300,000 FT <sup>2</sup>   | COLEBROOK, NH       |
| 2011        | LANDFILL CLOSURE   | 60 MIL LLDTPPE | 1,000,000 FT <sup>2</sup> | SOUTH STRAFFORD, VT |
| 2011        | MISC PONDS         | 40 MIL LLDPE   | 600,000 FT <sup>2</sup>   | WASHINGTON, PA      |
| 2011        | MISC PONDS         | 40 MIL HDTPE   | 400,000 FT <sup>2</sup>   | KANE, PA            |

# terrafix<sup>®</sup>

## environmental U.S.A. inc.

P.O. Box 367, 34 Court Street Auburn, Maine 04212 U.S.A. Tel: (207) 786-6808 Fax: (207) 786-6835

### *SCOTT LIM ~ TECHNICIAN*

#### *INSTALLATION REFERENCES*

| YEAR | PROJECT            | PRODUCT                    | QUANTITY                                         | LOCATION        |
|------|--------------------|----------------------------|--------------------------------------------------|-----------------|
| 2004 | LANDFILL CLOSURE   | 40 MIL LLDTPPE             | 500,000 FT <sup>2</sup>                          | NEW BEDFORD, MA |
| 2004 | LANDFILL CLOSURE   | 40 MIL HDTPE               | 360,000 FT <sup>2</sup>                          | CARVER, MA      |
| 2004 | LANDFILL CLOSURE   | 40 MIL LLDTPPE             | 850,000 FT <sup>2</sup>                          | CHEEKTOWAGA, NY |
| 2005 | LANDFILL EXPANSION | 60 MIL HDTPE               | 1,200,000 FT <sup>2</sup>                        | SENECA, NY      |
| 2005 | POND               | 40 MIL HDTPE               | 120,000 FT <sup>2</sup>                          | HOLLIS, ME      |
| 2005 | LANDFILL EXPANSION | 60 MIL HDTPE               | 200,000 FT <sup>2</sup>                          | SPRINGFIELD, MA |
| 2006 | LANDFILL CLOSURE   | 40 MIL HDTPE               | 700,000 FT <sup>2</sup>                          | BROCKTON, MA    |
| 2006 | LANDFILL EXPANSION | 80 MIL HDTPE               | 150,000 FT <sup>2</sup>                          | FRANKLIN, NH    |
| 2006 | LANDFILL CLOSURE   | 40 MIL HDTPE               | 400,000 FT <sup>2</sup>                          | SOUTHBRIDGE, MA |
| 2006 | LANDFILL EXPANSION | 60 MIL HDTPE               | 600,000 FT <sup>2</sup>                          | ELMIRA, NH      |
| 2006 | LANDFILL CLOSURE   | 40 MIL HDTPE               | 120,000 FT <sup>2</sup>                          | MILLVILLE, MA   |
| 2007 | LANDFILL EXPANSION | 60 MIL HDTPE               | 280,000 FT <sup>2</sup>                          | CAMPBELL, NY    |
| 2007 | LANDFILL EXPANSION | 60 MIL HDTPE               | 850,000 FT <sup>2</sup>                          | ANGELICA, NY    |
| 2007 | LANDFILL EXPANSION | 60 MIL HDPE<br>80 MIL HDPE | 60,000 FT <sup>2</sup><br>60,000 FT <sup>2</sup> | NANTUCKET, MA   |
| 2008 | LANDFILL EXPANSION | 60 MIL HDTPE               | 230,000 FT <sup>2</sup>                          | BETHLEHEM, NH   |
| 2008 | LANDFILL EXPANSION | 60 MIL HDTPE               | 1,300,000 FT <sup>2</sup>                        | NASHUA, NH      |
| 2009 | LANDFILL EXPANSION | 60 MIL HDTPE               | 700,000 FT <sup>2</sup>                          | SENECA, NY      |
| 2010 | LANDFILL EXPANSION | 60 MIL HDTPE               | 530,000 FT <sup>2</sup>                          | SENECA, NY      |
| 2010 | LANDFILL EXPANSION | 60 MIL HDTPE               | 420,000 FT <sup>2</sup>                          | ELMIRA, NY      |
| 2010 | LANDFILL CLOSURE   | 40 MIL HDTPE               | 400,000 FT <sup>2</sup>                          | SOUTHBRIDGE, MA |
| 2010 | MISC PONDS         | 40 MIL LLDPE               | 2,200,000 FT <sup>2</sup>                        | WASHINGTON, PA  |
| 2011 | LANDFILL EXPANSION | 60 MIL HDTPE               | 550,000 FT <sup>2</sup>                          | ANGELICA, NY    |
| 2011 | LANDFILL EXPANSION | 60 MIL HDTPE               | 400,000 FT <sup>2</sup>                          | CAMPBELL, NY    |
| 2011 | LANDFILL EXPANSION | 60 MIL HDTPE               | 220,000 FT <sup>2</sup>                          | MT JEWETT, PA   |

|      |                    |              |                         |                 |
|------|--------------------|--------------|-------------------------|-----------------|
| 2011 | LANDFILL EXPANSION | 60 MIL HDTPE | 200,000 FT <sup>2</sup> | SOUTHBRIDGE, MA |
| 2011 | MISC PONDS         | 40 MIL LLDPE | 600,000 FT <sup>2</sup> | WASHINGTON, PA  |
| 2011 | MISC PONDS         | 40 MIL HDTPE | 400,000 FT <sup>2</sup> | KANE, PA        |

# **terrafix<sup>®</sup>**

## **environmental U.S.A. inc.**

P.O. Box 367, 34 Court Street Auburn, Maine 04212 U.S.A. Tel: (207) 786-6808 Fax: (207) 786-6835

### ***SAENGPHEET MAHATHAY ~ TECHNICIAN***

#### ***INSTALLATION REFERENCES***

#### **GEOMEMBRANE PROJECTS**

| <b>YEAR</b> | <b>PROJECT</b>     | <b>PRODUCT</b> | <b>QUANTITY</b>           | <b>LOCATION</b>     |
|-------------|--------------------|----------------|---------------------------|---------------------|
| 2004        | LANDFILL EXPANSION | 60 MIL HDTPE   | 1,150,000 FT <sup>2</sup> | SENECA, NY          |
| 2005        | LANDFILL EXPANSION | 60 MIL HDTPE   | 400,000 FT <sup>2</sup>   | SOUTHBRIDGE, MA     |
| 2005        | LANDFILL EXPANSION | 60 MIL HDTPE   | 700,000 FT <sup>2</sup>   | NEWPORT, VT         |
| 2005        | LANDFILL CLOSURE   | 40 MIL HDTPE   | 700,000 FT <sup>2</sup>   | ORLEANS, MA         |
| 2005        | LANDFILL CLOSURE   | 40 MIL LLDTPPE | 300,000 FT <sup>2</sup>   | WELLFLEET, MA       |
| 2006        | LANDFILL EXPANSION | 60 MIL HDTPE   | 500,000 FT <sup>2</sup>   | PLATTSBURGH, NY     |
| 2006        | LANDFILL EXPANSION | 60 MIL HDTPE   | 350,000 FT <sup>2</sup>   | BETHLEHEM, NH       |
| 2007        | LANDFILL CLOSURE   | 40 MIL LLDTPPE | 250,000 FT <sup>2</sup>   | AUBURN, NY          |
| 2007        | LANDFILL EXPANSION | 60 MIL HDTPE   | 400,000 FT <sup>2</sup>   | SOUTHBRIDGE, MA     |
| 2007        | LANDFILL EXPANSION | 60 MIL HDTPE   | 800,000 FT <sup>2</sup>   | STANLEY, NY         |
| 2007        | LANDFILL EXPANSION | 60 MIL HDTPE   | 650,000 FT <sup>2</sup>   | NEWPORT, VT         |
| 2007        | LANDFILL CLOSURE   | 40 MIL HDTPE   | 300,000 FT <sup>2</sup>   | COLEBROOK, NH       |
| 2011        | LANDFILL CLOSURE   | 60 MIL LLDTPPE | 1,000,000 FT <sup>2</sup> | SOUTH STRAFFORD, VT |
| 2011        | MISC PONDS         | 40 MIL LLDPE   | 600,000 FT <sup>2</sup>   | WASHINGTON, PA      |
| 2011        | MISC PONDS         | 40 MIL HDTPE   | 400,000 FT <sup>2</sup>   | KANE, PA            |



# terrafix<sup>®</sup>

## environmental U.S.A. inc.

P.O. Box 367, 34 Court Street Auburn, Maine 04212 U.S.A. Tel: (207) 786-6808 Fax: (207) 786-6835

### *YORNG NAY ~ TECHNICIAN*

#### *INSTALLATION REFERENCES*

| YEAR | PROJECT            | PRODUCT                    | QUANTITY                                         | LOCATION        |
|------|--------------------|----------------------------|--------------------------------------------------|-----------------|
| 2004 | LANDFILL CLOSURE   | 40 MIL LLDTPPE             | 500,000 FT <sup>2</sup>                          | NEW BEDFORD, MA |
| 2004 | LANDFILL CLOSURE   | 40 MIL HDTPE               | 360,000 FT <sup>2</sup>                          | CARVER, MA      |
| 2004 | LANDFILL CLOSURE   | 40 MIL LLDTPPE             | 850,000 FT <sup>2</sup>                          | CHEEKTOWAGA, NY |
| 2005 | LANDFILL EXPANSION | 60 MIL HDTPE               | 1,200,000 FT <sup>2</sup>                        | SENECA, NY      |
| 2005 | POND               | 40 MIL HDTPE               | 120,000 FT <sup>2</sup>                          | HOLLIS, ME      |
| 2005 | LANDFILL EXPANSION | 60 MIL HDTPE               | 200,000 FT <sup>2</sup>                          | SPRINGFIELD, MA |
| 2006 | LANDFILL CLOSURE   | 40 MIL HDTPE               | 700,000 FT <sup>2</sup>                          | BROCKTON, MA    |
| 2006 | LANDFILL EXPANSION | 80 MIL HDTPE               | 150,000 FT <sup>2</sup>                          | FRANKLIN, NH    |
| 2006 | LANDFILL CLOSURE   | 40 MIL HDTPE               | 400,000 FT <sup>2</sup>                          | SOUTHBRIDGE, MA |
| 2006 | LANDFILL EXPANSION | 60 MIL HDTPE               | 600,000 FT <sup>2</sup>                          | ELMIRA, NH      |
| 2006 | LANDFILL CLOSURE   | 40 MIL HDTPE               | 120,000 FT <sup>2</sup>                          | MILLVILLE, MA   |
| 2007 | LANDFILL EXPANSION | 60 MIL HDTPE               | 280,000 FT <sup>2</sup>                          | CAMPBELL, NY    |
| 2007 | LANDFILL EXPANSION | 60 MIL HDTPE               | 850,000 FT <sup>2</sup>                          | ANGELICA, NY    |
| 2007 | LANDFILL EXPANSION | 60 MIL HDPE<br>80 MIL HDPE | 60,000 FT <sup>2</sup><br>60,000 FT <sup>2</sup> | NANTUCKET, MA   |
| 2008 | LANDFILL EXPANSION | 60 MIL HDTPE               | 230,000 FT <sup>2</sup>                          | BETHLEHEM, NH   |
| 2008 | LANDFILL EXPANSION | 60 MIL HDTPE               | 1,300,000 FT <sup>2</sup>                        | NASHUA, NH      |
| 2009 | LANDFILL EXPANSION | 60 MIL HDTPE               | 700,000 FT <sup>2</sup>                          | SENECA, NY      |
| 2010 | LANDFILL EXPANSION | 60 MIL HDTPE               | 530,000 FT <sup>2</sup>                          | SENECA, NY      |
| 2010 | LANDFILL EXPANSION | 60 MIL HDTPE               | 420,000 FT <sup>2</sup>                          | ELMIRA, NY      |
| 2010 | LANDFILL CLOSURE   | 40 MIL HDTPE               | 400,000 FT <sup>2</sup>                          | SOUTHBRIDGE, MA |
| 2010 | MISC PONDS         | 40 MIL LLDPE               | 2,200,000 FT <sup>2</sup>                        | WASHINGTON, PA  |
| 2011 | LANDFILL EXPANSION | 60 MIL HDTPE               | 550,000 FT <sup>2</sup>                          | ANGELICA, NY    |
| 2011 | LANDFILL EXPANSION | 60 MIL HDTPE               | 400,000 FT <sup>2</sup>                          | CAMPBELL, NY    |
| 2011 | LANDFILL EXPANSION | 60 MIL HDTPE               | 220,000 FT <sup>2</sup>                          | MT JEWETT, PA   |

|      |                    |              |                         |                 |
|------|--------------------|--------------|-------------------------|-----------------|
| 2011 | LANDFILL EXPANSION | 60 MIL HDTPE | 200,000 FT <sup>2</sup> | SOUTHBRIDGE, MA |
| 2011 | MISC PONDS         | 40 MIL LLDPE | 600,000 FT <sup>2</sup> | WASHINGTON, PA  |
| 2011 | MISC PONDS         | 40 MIL HDTPE | 400,000 FT <sup>2</sup> | KANE, PA        |

| <b>TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR<br/>MANUFACTURER'S CERTIFICATES OF COMPLIANCE</b><br><i>(Read instructions on reverse side prior to initiating this form)</i> |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         | <b>DATE</b><br>October 1, 2012               |                                      | <b>TRANSMITTAL NO:</b><br><b>007</b>                                                                                                                                |                                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| <b>SECTION I - REQUEST FOR APPROVAL OF THE FOLLOWING ITEMS</b> (This section will be initiated by the Contractor)                                                                                   |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
| <b>TO:</b><br>Zachary Mothershed - Project Engineer<br>US Army Corps of Engineers<br>696 Virginia Road<br>Concord, MA 01742-2751                                                                    |                                                                                 |                                                                                                  | <b>FROM:</b><br>Sovereign Consulting, Inc.<br>16 Chestnut Street, Suite 520<br>Foxboro, MA 02035                                                  |                                                                                                                                                                                                                                                                                                                         | <b>CONTRACT NO:</b><br>W912WJ-10-D-0003-0002 |                                      | <b>CHECK ONE:</b><br><input checked="checked" type="checkbox"/> THIS IS A NEW TRANSMITTAL<br><input type="checkbox"/> THIS IS A RESUBMITTAL OF<br>TRANSMITTAL _____ |                                |
| SPECIFICATION SECTION NO: (Cover only one section with each transmittal)<br><div style="text-align: center; font-weight: bold; font-size: 1.2em;">02300, 02736</div>                                |                                                                                 |                                                                                                  | PROJECT TITLE AND LOCATION:<br><div style="text-align: center;"> <b>Shepley's Hill Landfill<br/>Barrier Wall<br/>Devens, Massachusetts</b> </div> |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
| ITEM<br>NO.<br><br>a.                                                                                                                                                                               | DESCRIPTION OF ITEM SUBMITTED<br><br>b.<br><br>(Type, size, model number, etc.) | MFG. OR CONTR. CAT.<br>CURVE DRAWING OR<br>BROCHURE NO.<br><br>c.<br><br>(See instruction No. 8) | NO. OF<br>COPIES<br><br>d.                                                                                                                        | CONTRACT REFERENCE<br>DOCUMENT                                                                                                                                                                                                                                                                                          |                                              | FOR CONTRACTOR<br>USE CODE<br><br>g. | VARIATION<br><br>(See instruction<br>No. 6)<br><br>h.                                                                                                               | FORCE<br>USE<br>CODE<br><br>i. |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   | SPEC. PARA.<br>NO.<br><br>e.                                                                                                                                                                                                                                                                                            | DRAWING<br>SHEET NO.<br><br>f.               |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   | 1.4                                                                                                                                                                                                                                                                                                                     | C-302, E, F                                  |                                      |                                                                                                                                                                     |                                |
| 1                                                                                                                                                                                                   | Chemical Fusion Agent - Geomembrane                                             | N/A                                                                                              | 1                                                                                                                                                 | 1.4                                                                                                                                                                                                                                                                                                                     | C-302, E, F                                  | FIO                                  | ~                                                                                                                                                                   |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
|                                                                                                                                                                                                     |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
| REMARKS                                                                                                                                                                                             |                                                                                 |                                                                                                  |                                                                                                                                                   | I certify that the above submitted items have been reviewed<br>in detail and correct and in strict conformance with the<br>contract drawings and specifications except as otherwise stated.<br><br><div style="text-align: right;"> <u>Thomas B. Hevner</u> <br/>         NAME AND SIGNATURE OF CONTRACTOR       </div> |                                              |                                      |                                                                                                                                                                     |                                |
| <b>SECTION II - APPROVAL ACTION</b>                                                                                                                                                                 |                                                                                 |                                                                                                  |                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                         |                                              |                                      |                                                                                                                                                                     |                                |
| ENCLOSURES RETURNED (List by Item No.)                                                                                                                                                              |                                                                                 |                                                                                                  | NAME, TITLE AND SIGNATURE OF APPROVING AUTHORITY                                                                                                  |                                                                                                                                                                                                                                                                                                                         |                                              |                                      | DATE                                                                                                                                                                |                                |



**RH Products Co., Inc.**  
Specialty Adhesives



[Home](#) | [About Us](#) | [Distributor Information](#) | [Contact Us](#)

**PRODUCTS**

**HH-66 Vinyl Cement**

**S-18 Neoprene Cement**

**XL-8 Neoprene Cement**

**Duall-88 Neoprene Cement**

**Clear-Tite-HHR Neoprene Cement**

**HH-66 Vinyl Cement "More durable than the fabric itself"**

**HH-66 Vinyl Cement** is a superior quality, fast drying adhesive. It is used extensively for bonding vinyl coated and vinyl laminated fabrics to themselves or to various materials. HH-66 is also used to bond urethanes, vinyl foams and films, rigid plastics, synthetic fabrics, wood, leather, and metals. It is outstanding for sealing or waterproofing stitched seams.

HH-66 dries quickly with a very strong, yet flexible bond. It is not affected by weather and temperature extremes, and is highly resistant to oil, fuel, grease, and many other chemicals.

Application is by brush, roller, or squeeze bottle. Dried films may be reactivated to the tacky state by high heat or solvent.

**HH-66 is used widely in the manufacture and repair of:**

- |               |                      |                       |                       |
|---------------|----------------------|-----------------------|-----------------------|
| • Tarpaulins  | • Inflatables        | • Sporting Goods      | • Footwear            |
| • Pool Covers | • Flexible Signs     | • Protective Coatings | • Flexible Hose       |
| • Furniture   | • Mats               | • Liners              | • Industrial Curtains |
| • Oil Booms   | • Tension Structures | • Awnings             | • Dock Seals          |
| • Domes       | • Furniture          | • Trailer covers      |                       |



Please [contact us](#) for the distributor nearest you.

**Technical Data:**

|                    |                           |
|--------------------|---------------------------|
| Base:              | Thermoplasticelastomer    |
| Color:             | Clear                     |
| Solvent:           | MEK-Toluene-Acetone Blend |
| Viscosity:         | Medium, 1100-1300 cps.    |
| Application:       | Brush or Roller           |
| Solids:            | 15% ± 1% (Approximately)  |
| Net Weight:        | 8 Lbs. (Approximately)    |
| Temperature Range: | -30° to 180°F.            |
| Tack Life:         | 2 – 5 minutes             |
| Shelf Life:        | 18 months or longer       |
| Flash Point:       | 22° F.                    |

**Precautions:**

**Danger – Flammable Mixture.**  
**Do Not Use Near Fire or Flame.**  
**Use with Adequate Ventilation.**  
**Vapor May Cause Flash Fire.**  
**Avoid Prolonged Breathing of Vapor and Contact With Eyes and Skin.**

RH Products Co., Inc. • 308 Old High Street, Acton, MA 01720 • Phone: 978-897-8000  
www.RHAdhesives.com • E-mail: [Sales@RHAdhesives.com](mailto:Sales@RHAdhesives.com) • [Privacy Policy](#) • [Site Map](#)

Site created by [ThomasNet Web Solutions](#)

# MATERIAL SAFETY DATA SHEET

NSN: 8040013401575

Manufacturer's CAGE: 25592

Part No. Indicator: C

Part Number/Trade Name: HH-66 VINYL CEMENT

## General Information

Company's Name: R-H PRODUCTS CO INC

Company's Street: 308 OLD HIGH ST

Company's P. O. Box: 2301

Company's City: ACTON

Company's State: MA

Company's Country: US

Company's Zip Code: 01720

Company's Emerg Ph #: 800-535-5053

Company's Info Ph #: 508-897-8000

Record No. For Safety Entry: 002

Tot Safety Entries This Stk#: 002

Status: SMJ

Date MSDS Prepared: 03OCT94

Safety Data Review Date: 18OCT96

MSDS Serial Number: CCQVK

## Ingredients/Identity Information

Proprietary: NO

Ingredient: 2-BUTANONE; (METHYL ETHYL KETONE) (SARA 313) (CERCLA)

Ingredient Sequence Number: 01

Percent: 52

NIOSH (RTECS) Number: EL6475000

CAS Number: 78-93-3

OSHA PEL: 200 PPM

ACGIH TLV: 200 PPM; 300 STEL

Proprietary: NO

Ingredient: ACETONE (SARA 313) (CERCLA) BP: 132F,56C

Ingredient Sequence Number: 02

Percent: 18

NIOSH (RTECS) Number: AL3150000

CAS Number: 67-64-1

OSHA PEL: 1000 PPM

ACGIH TLV: 750 PPM; 1000 STEL

Proprietary: NO

Ingredient: TOLUENE (SARA 313) (CERCLA)

Ingredient Sequence Number: 03  
Percent: 15  
NIOSH (RTECS) Number: XS5250000  
CAS Number: 108-88-3  
OSHA PEL: 200 PPM  
ACGIH TLV: 50 PPM, S

=====

Physical/Chemical Characteristics

=====

Appearance And Odor: CLEAR; FRAGRANT MINT-LIKE ODOR, SHARP.  
Boiling Point: 132F,56C  
Vapor Pressure (MM Hg/70 F): 180 @ 68F  
Vapor Density (Air=1): HVR/AIR  
Specific Gravity: SUPDAT  
Evaporation Rate And Ref: SLOWER (BUTYL ACETATE=1)  
Solubility In Water: INSOLUBLE

=====

Fire and Explosion Hazard Data

=====

Flash Point: 6F,-14C  
Flash Point Method: TCC  
Lower Explosive Limit: 1%  
Upper Explosive Limit: 12%  
Extinguishing Media: FOAM, DRY CHEMICAL, CARBON DIOXIDE.  
Special Fire Fighting Proc: USE NIOSH APPROVED SCBA AND FULL PROTECTIVE EQUIPMENT (FP N).  
Unusual Fire And Expl Hazrds: EXTREMELY FLAMMABLE. OVERHEATED, CLOSED CONTAINER NEAR TO FIRE COULD EXPLODE DUE TO PRESSURE BUILDUP.

=====

Reactivity Data

=====

Stability: YES  
Cond To Avoid (Stability): NOT APPLICABLE.  
Materials To Avoid: STRONG OXIDIZING AGENTS.  
Hazardous Decomp Products: CARBON DIOXIDE AND CARBON MONOXIDE WHEN SUBJECTED TO FLAMES OR EXCESSIVE HEAT.  
Hazardous Poly Occur: NO  
Conditions To Avoid (Poly): NOT RELEVANT

=====

Health Hazard Data

=====

LD50-LC50 Mixture: NONE SPECIFIED BY MANUFACTURER.  
Route Of Entry - Inhalation: YES  
Route Of Entry - Skin: YES  
Route Of Entry - Ingestion: YES  
Health Haz Acute And Chronic: TOLUENE APPEARS ON THE NAVY LIST OF OCCUP

CHEM REPRO HAZS. SEEK CONSULTATION FROM APPROP HLTH PROFESSIONALS CONCERNING LATEST HAZ LIST INFO & SAFE HNDLG & EXPOS INFO (FP N). EYES: LIQ MILDLY IRRIT. OVEREXP MAY ALSO CAUSE IRRIT. REDNESS, TEARING & SWELLING. SKIN: DRYNESS OF SKIN INCLUDING CRACKING. (EFTS OF OVEREXP)

Carcinogenicity - NTP: NO

Carcinogenicity - IARC: NO

Carcinogenicity - OSHA: NO

Explanation Carcinogenicity: NOT RELEVANT

Signs/Symptoms Of Overexp: HLTH HAZ: PRLNGD CNTCT CAN CAUSE DEFATTING & POSS DERMATITIS. INHAL: OVEREXP MAY CAUSE IRRIT TO RESP SYS INCLUDING DIZZINESS, HEADACHE, NAUSEA & LT HEAD. EXTREME OVEREXP TO VAPS COULD RESULT

IN CNS, LIVER & KIDNEY DAMAGE. INGEST: MAY CAUSE GI IRRIT. ASPIRATION INTO LUNGS AS RESULT OF VOMITING MAY CAUSE LUNG DAMAGE.

Med Cond Aggravated By Exp: SKIN:PRLNGD CNTCT WILL DEFAT SKIN & CAUSE DERM. INHAL:EXTREME OVEREXP OF TOLUENE VAPS MAY CAUSE NERVS SYS DMG. INGEST: NAUS, VOMIT & DIARR. ASPIR INTO LUNGS AS RSLT OF VOMIT MAY CAUSE LUNG DMG.

Emergency/First Aid Proc: EYES: FLUSH IMMEDIATELY WITH WATER FOR AT LEAST 15 MINUTES. CALL MD. SKIN: WASH AREA WITH SOAP AND WATER. INHAL: MOVE AFFECTED PERSON TO FRESH AIR AT ONCE. RESTORE BREATHING. CALL MD IF DIFFICULTIES PERSIST. INGEST: DO NOT INDUCE VOMITING. CALL MD. GIVE WATER TO VICTIM. IF VOMITING OCCURS, PREVENT ASPIRATION INTO LUNGS.

=====

#### Precautions for Safe Handling and Use

=====

Steps If Matl Released/Spill: EXTINGUISH ALL SOURCES OF IGNITION IN AREA. COLLECT SPILLED MATERIAL AND PLACE IN A CLOSED CONTAINER FOR DISPOSAL OR SALVAGE.

Neutralizing Agent: NONE SPECIFIED BY MANUFACTURER.

Waste Disposal Method: DISPOSE IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS. EPA HAZARDOUS WASTE NUMBER: D035 (IGNITABLE).

Precautions-Handling/Storing: KEEP AWAY FROM HEAT, OPEN FLAMES & SPARKS.

USE & STORE WITH ADEQUATE VENTILATION TO PREVENT VAPOR BUILDUP. VAPORS RELEASED BY PROD CAN EASILY IGNITE.

Other Precautions: AVOID CONTACT WITH SKIN AND EYES. AVOID PROLONGED BREATHING OF VAPORS. KEEP CONTAINER CLOSED WHEN NOT IN USE. KEEP OUT OF REACH OF CHILDREN.

=====

#### Control Measures

=====

Respiratory Protection: IF EXPOSURE EXCEEDS OCCUPATIONAL EXPOSURE LIMITS, USE A NIOSH APPROVED RESPIRATOR TO PREVENT OVEREXPOSURE. PER 29 CFR 1910.134. NIOSH APPROVED CCROV OR SA TYPES RECOMMENDED.

Ventilation: LOC EXHST & MECH (GEN) SHOULD BE USED TO MAINTAIN EXPOS BELOW TLV(S). EXPLO PROOF VENT MAY BE REQD TO CTL VAP CONCS.



Protective Gloves: IMPERVIOUS GLOVES (FP N).  
Eye Protection: ANSI APPRVD CHEM WORKERS GOGGLES (FP N).  
Other Protective Equipment: ANSI APPROVED EYE WASH & DELUGE SHOWER (FP N).  
WORK APRON TO AVOID CONTACT WITH PERSONAL CLOTHING AND SKIN.  
Work Hygienic Practices: KEEP AREA CLEAN. WASH HANDS THOROUGHLY AFTER  
WORKING WITH PRODUCT.  
Suppl. Safety & Health Data: SPEC GRAV: 0.78-0.88 (H\*2O=1).

=====

Transportation Data

=====

Trans Data Review Date: 97090  
DOT PSN Code: AFR  
DOT Proper Shipping Name: ADHESIVES,  
DOT Class: 3  
DOT ID Number: UN1133  
DOT Pack Group: II  
DOT Label: FLAMMABLE LIQUID  
IMO PSN Code: AIH  
IMO Proper Shipping Name: ADHESIVES,  
IMO Regulations Page Number: 3174  
IMO UN Number: 1133  
IMO UN Class: 3.2  
IMO Subsidiary Risk Label: -  
IATA PSN Code: AKY  
IATA UN ID Number: 1133  
IATA Proper Shipping Name: ADHESIVES  
IATA UN Class: 3  
IATA Label: FLAMMABLE LIQUID  
AFI PSN Code: AKY  
AFI Prop. Shipping Name: ADHESIVES  
AFI Class: 3  
AFI ID Number: UN1133  
AFI Pack Group: II  
AFI Basic Pac Ref: A7.3

=====

Disposal Data

=====

=====

Label Data

=====

Label Required: YES  
Technical Review Date: 18OCT96  
Label Date: 17OCT96  
Label Status: G  
Common Name: HH-66 VINYL CEMENT  
Chronic Hazard: YES

Signal Word: DANGER!

Acute Health Hazard-Moderate: X

Contact Hazard-Slight: X

Fire Hazard-Severe: X

Reactivity Hazard-None: X

Special Hazard Precautions: EXTREMELY FLAMMABLE. ACUTE: EYES: IRRITATION, REDNESS, TEARING AND SWELLING. SKIN: DRYNESS AND CRACKING, DEFATTING AND POSSIBLE DERMATITIS. INHALATION: IRRITATION TO RESPIRATORY SYSTEM, DIZZINESS, HEADACHE, NAUSEA AND LIGHT HEADEDNESS. EXTREME OVEREXPOSURE NAUSEA, VOMITING AND DIARRHEA. ASPIRATION INTO LUNGS MAY CAUSE LUNG DAMAGE.

CHRONIC: TOLUENE APPEARS ON THE NAVY OCCUPATIONAL CHEMICAL REPRODUCTIVE HAZARDS LIST (FP N).

Protect Eye: Y

Protect Skin: Y

Protect Respiratory: Y

Label Name: R-H PRODUCTS CO INC

Label Street: 308 OLD HIGH ST

Label P.O. Box: 2301

Label City: ACTON

Label State: MA

Label Zip Code: 01720

Label Country: US

Label Emergency Number: 800-535-5053

| <b>TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR<br/>MANUFACTURER'S CERTIFICATES OF COMPLIANCE</b><br><small>(Read instructions on reverse side prior to initiating this form)</small>                                      |                                         |                                                                                              |                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                   | <b>DATE</b><br>October 10, 2012              |                                      | <b>TRANSMITTAL NO:</b><br><b>008</b>                                                                                                                      |                                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| <b>SECTION I - REQUEST FOR APPROVAL OF THE FOLLOWING ITEMS</b> (This section will be initiated by the Contractor)                                                                                                                                |                                         |                                                                                              |                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                   |                                              |                                      |                                                                                                                                                           |                                |
| <b>TO:</b><br>Zachary Mothershed - Project Engineer<br>US Army Corps of Engineers<br>696 Virginia Road<br>Concord, MA 01742-2751                                                                                                                 |                                         |                                                                                              | <b>FROM:</b><br>Sovereign Consulting, Inc.<br>16 Chestnut Street, Suite 520<br>Foxboro, MA 02035                                                 |                                                                                                                                                                                                                                                                                                                   | <b>CONTRACT NO:</b><br>W912WJ-10-D-0003-0002 |                                      | <b>CHECK ONE:</b><br><input checked="" type="checkbox"/> THIS IS A NEW TRANSMITTAL<br><input type="checkbox"/> THIS IS A RESUBMITTAL OF TRANSMITTAL _____ |                                |
| SPECIFICATION SECTION NO: (Cover only one section with each transmittal)<br><b>02485 (02260, 02370)</b>                                                                                                                                          |                                         |                                                                                              | PROJECT TITLE AND LOCATION:<br><div style="text-align: right;"> <b>Shepley's Hill Landfill<br/>Barrier Wall<br/>Devens, Massachusetts</b> </div> |                                                                                                                                                                                                                                                                                                                   |                                              |                                      |                                                                                                                                                           |                                |
| ITEM<br>NO.<br><br>a.                                                                                                                                                                                                                            | DESCRIPTION OF ITEM SUBMITTED<br><br>b. | MFG. OR CONTR. CAT.<br>CURVE DRAWING OR<br>BROCHURE NO.<br>(See instruction No. 8)<br><br>c. | NO. OF<br>COPIES<br><br>d.                                                                                                                       | CONTRACT REFERENCE<br>DOCUMENT                                                                                                                                                                                                                                                                                    |                                              | FOR CONTRACTOR<br>USE CODE<br><br>g. | VARIATION<br>(See instruction<br>No. 6)<br><br>h.                                                                                                         | FORCE<br>USE<br>CODE<br><br>i. |
|                                                                                                                                                                                                                                                  |                                         |                                                                                              |                                                                                                                                                  | SPEC. PARA.<br>NO.<br><br>e.                                                                                                                                                                                                                                                                                      | DRAWING<br>SHEET NO.<br><br>f.               |                                      |                                                                                                                                                           |                                |
| 1                                                                                                                                                                                                                                                | Revised Seed Mix - Required by ACOE     | N/A                                                                                          | 1                                                                                                                                                | 1.4                                                                                                                                                                                                                                                                                                               | C-103                                        | For Approval                         | ~                                                                                                                                                         |                                |
|                                                                                                                                                                                                                                                  |                                         |                                                                                              |                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                   | C-302, E                                     |                                      |                                                                                                                                                           |                                |
|                                                                                                                                                                                                                                                  |                                         |                                                                                              |                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                   |                                              |                                      |                                                                                                                                                           |                                |
|                                                                                                                                                                                                                                                  |                                         |                                                                                              |                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                   |                                              |                                      |                                                                                                                                                           |                                |
|                                                                                                                                                                                                                                                  |                                         |                                                                                              |                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                   |                                              |                                      |                                                                                                                                                           |                                |
|                                                                                                                                                                                                                                                  |                                         |                                                                                              |                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                   |                                              |                                      |                                                                                                                                                           |                                |
|                                                                                                                                                                                                                                                  |                                         |                                                                                              |                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                   |                                              |                                      |                                                                                                                                                           |                                |
|                                                                                                                                                                                                                                                  |                                         |                                                                                              |                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                   |                                              |                                      |                                                                                                                                                           |                                |
|                                                                                                                                                                                                                                                  |                                         |                                                                                              |                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                   |                                              |                                      |                                                                                                                                                           |                                |
|                                                                                                                                                                                                                                                  |                                         |                                                                                              |                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                   |                                              |                                      |                                                                                                                                                           |                                |
|                                                                                                                                                                                                                                                  |                                         |                                                                                              |                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                   |                                              |                                      |                                                                                                                                                           |                                |
|                                                                                                                                                                                                                                                  |                                         |                                                                                              |                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                   |                                              |                                      |                                                                                                                                                           |                                |
|                                                                                                                                                                                                                                                  |                                         |                                                                                              |                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                   |                                              |                                      |                                                                                                                                                           |                                |
|                                                                                                                                                                                                                                                  |                                         |                                                                                              |                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                   |                                              |                                      |                                                                                                                                                           |                                |
| REMARKS<br>Per the USACE's request the existing restoration plan (seed and loam) has been revised. The final restoration will be performed in accordance the USACE-NE recommended restoration plan contained in an email dated 04 September 2012 |                                         |                                                                                              |                                                                                                                                                  | I certify that the above submitted items have been reviewed in detail and correct and in strict conformance with the contract drawings and specifications except as otherwise stated.<br><br><div style="text-align: right;"> <u>Thomas B. Hevner</u> <br/>         NAME AND SIGNATURE OF CONTRACTOR       </div> |                                              |                                      |                                                                                                                                                           |                                |
| <b>SECTION II - APPROVAL ACTION</b>                                                                                                                                                                                                              |                                         |                                                                                              |                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                   |                                              |                                      |                                                                                                                                                           |                                |
| ENCLOSURES RETURNED (List by Item No.)                                                                                                                                                                                                           |                                         |                                                                                              | NAME, TITLE AND SIGNATURE OF APPROVING AUTHORITY                                                                                                 |                                                                                                                                                                                                                                                                                                                   |                                              |                                      | DATE                                                                                                                                                      |                                |
|                                                                                                                                                                                                                                                  |                                         |                                                                                              |                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                   |                                              |                                      |                                                                                                                                                           |                                |

# PRO LAWN SUPPLY, INC.

67A MILLBROOK STREET  
WORCESTER, MA 01606  
TEL: 508-754-0100 / FAX: 508-754-0101

## CERTIFICATE OF MATERIALS

Date: **09-27-12**

We hereby certify that **PRO LAWN SUPPLY, INC..**

Furnished to: **Gatsby Grounds**

For use on:

Federal:

Highway contract no:

Quantity:

Identified by: **Tags**

Shipped via: **PRO LAWN SUPPLY, INC.**

| <u>MF-GLA</u>  | <u>Special Mix</u>           |             |
|----------------|------------------------------|-------------|
| <u>PERCENT</u> | <u>Fine textured grasses</u> | <u>GERM</u> |
| 49.50%         | Camper Little Bluestem       | 89%         |
| 32.67%         | Niagara Big Bluestem         | 85%         |
| 14.85%         | Indiangrass                  | 85%         |
| 1.48%          | Black Eyed Susan             | 75%         |
| 0.24%          | Blue False Indigo            | 85%         |
| 0.24%          | Perennial Lupine             | 90%         |

### OTHER INGREDIENTS

|               |                       |               |
|---------------|-----------------------|---------------|
| 0.85% INERT   | 0.10% CROP            | 0.05% WEED    |
| TESTED: 09/12 | PRO LAWN SUPPLY, INC. | WORCESTER, MA |

MEETS THE REQUIREMENTS OF THE PERTINENT PROJECT PLANS, SPECIAL PROVISIONS AND SPECIFICATIONS OF THE DEPARTMENT OF TRANSPORTATION IN ALL RESPECTS. PROCESSING, TESTING, AND INSPECTION CONTROL, OF RAW MATERIALS ARE IN CONFORMANCE WITH ALL ARTICLES FURNISHED.

ALL RECORDS AND DOCUMENTS PERTINENT TO THIS CERTIFICATE AND NOT SUBMITTED HERewith WILL BE MAINTAINED AVAILABLE FOR A PERIOD OF NOT LESS THAN THREE YEARS FROM DATE OF FINAL PAYMENT.

## Hevner, Thomas

---

**From:** Iorio, Maryellen NAE <Maryellen.Iorio@usace.army.mil>  
**Sent:** Thursday, September 27, 2012 11:03 AM  
**To:** Mothershed, Zachary J NAE; Hevner, Thomas  
**Subject:** FW: Shepley (NHESP 12-31152) - Following Up (UNCLASSIFIED)  
**Attachments:** Shepley Landfill Cutoff Wall - Site restoration v2.doc

**Categories:** Milestone

Classification: UNCLASSIFIED

Caveats: NONE

Do you have time to accommodate this?

e

Ellen Iorio, P.E, P.M.P  
US Army Corps of Engineers  
New England District  
696 Virginia Road  
Concord, MA 01742-2751  
978-318-8433 (office)  
978-408-0416 (BlackBerry)  
978-318-8891 (fax)

-----Original Message-----

From: Penko, Michael NAE  
Sent: Thursday, September 27, 2012 10:59 AM  
To: Hevner, Thomas  
Cc: Iorio, Maryellen NAE  
Subject: FW: Shepley (NHESP 12-31152) - Following Up

Tom,

NHESP approved the proposed warm season seed mix for the shepley cutoff wall restoration, with one minor exception (delete Lance-leaved coreopsis)

They also had some comments on the standard New England Wetland Plant (NEWP) seed mixes recommended for sloped dry areas and wet areas. Please try to meet these requests, if possible. If NEWP can't supply the modified mixes without a big hassle, just go with their standard mix.

Thanks

Mike.

Michael Penko  
Ecologist  
US Army Corps of Engineers

New England District  
696 Virginia Road  
Concord, MA 01742  
978-318-8139

-----Original Message-----

From: Leddick, Jesse (FWE) [mailto:[jesse.leddick@state.ma.us](mailto:jesse.leddick@state.ma.us)]  
Sent: Thursday, September 27, 2012 8:53 AM  
To: Penko, Michael NAE  
Subject: RE: Shepley (NHESP 12-31152) - Following Up

Mike,

Great, looks like we have a plan. I have prepared a comment letter memorializing the approach we have discussed, including restoration of upland areas after disturbance (with warm season grasses, to the extent possible) and monitoring of the barrier wall area (so as to inform future restoration phases). We should be able to issue this next week.

Thanks, also, for forwarding along the seed mix for our review. Upon review of the proposed list, our botanist identified the following species as non-native (introduced). If possible, it would be great to adjust the planting list so as to remove these species, or as many of them as practicable; New England Wetland Plants should be able to easily adjust the mixes, but please let me know if this becomes problematic. Would it also be possible to quickly update the restoration plan (noting the deletions, below, or whatever ends up being practicable after speaking with the seed company) and resend? I would like to attach the final restoration plan to our letter, if possible.

Warm Season Grass Mix: Lance-leaved coreopsis. All other species okay.

Mix for Dry Sites: *Lolium multiflorum*, *Lolium perenne*, and *Bouteloua gracilis*. Additionally, it would be great to use the native subspecies of

*Festuca rubra*, if possible. All other species okay.

Mix for Wet Sites: As above, it would be great to use the native subspecies of *Festuca rubra*, if possible. All other species okay.

Thanks again for your help and work on this.

. Jesse

-----  
Jesse Leddick  
Endangered Species Review Biologist  
Natural Heritage & Endangered Species Program MA Division of Fisheries & Wildlife PLEASE NOTE NEW ADDRESS (phone & email unchanged)  
100 Hartwell Street, Suite 230, West Boylston, MA, 01583  
Phone: 508-389-6386 | Fax: 508-389-7890

-----Original Message-----

From: Penko, Michael NAE [mailto:[Michael.Penko@usace.army.mil](mailto:Michael.Penko@usace.army.mil)]

Sent: Wednesday, September 19, 2012 3:55 PM  
To: Leddick, Jesse (FWE)  
Subject: RE: Shepley (NHESP 12-31152) - Following Up

Jesse,

The approach you outline sounds fine. We would be willing to monitor the site post seeding to see how things go. The Plow Shop Pond work is not currently funded...will know in February if it will be done in 2013. The Round House work is on hold. They were unable to dewater the work area. A plan is being developed to address this issue (involves partial draining of the pond) and I will send that along in a separate communication. We would be willing to submit restoration plans for Red Cove and Round House work in advance for your review and approval. A link to the New England Wetland Plants mix is attached.

Thanks

Mike

<http://www.newp.com/catalogue-seeds.html>

-----Original Message-----

From: Leddick, Jesse (FWE) [mailto:[jesse.lednick@state.ma.us](mailto:jesse.lednick@state.ma.us)]  
Sent: Monday, September 17, 2012 11:53 AM  
To: Penko, Michael NAE  
Cc: Leddick, Jesse (FWE)  
Subject: RE: Shepley (NHESP 12-31152) - Following Up

Hi Mike,

Thanks very much for forwarding this along, and my apologies for the delayed response on my end. We actually moved offices over the last two weeks but are finally up and running after a very hectic period. But generally, the habitat restoration plan looks great. I will need to run the seed mixture by our botanist for review (just to be sure that all are native); toward this end, can you please forward the seed mixture for the dry site mix as soon as possible? I will forward this, plus the plan, directly to our botanist for review.

Additionally, it would be helpful to include the proposed timing for the Round House and Red Cove projects (in the restoration plan you sent). Given that we are looking to assess performance of this initial restoration so as to inform restoration for the future projects/phases, it would also be helpful to explicitly state how/when restoration success will be assessed; this can be qualitative in nature, I think, but I would appreciate your thoughts on how to make this more explicit in the plan.

I would anticipate, in our comment letter, requesting that restoration plans be submitted for review prior to restoration of future phases, which would enable us to incorporate lessons from this restoration into future plans.... does this seem like an appropriate approach from your perspective?

Many thanks,

... Jesse

-----  
Jesse Leddick

Endangered Species Review Biologist

Natural Heritage & Endangered Species Program MA Division of Fisheries & Wildlife PLEASE NOTE NEW ADDRESS (phone & email unchanged)

100 Hartwell Street, Suite 230, West Boylston, MA, 01583

Phone: 508-389-6386 | Fax: 508-389-7890

-----Original Message-----

From: Penko, Michael NAE [mailto:Michael.Penko@usace.army.mil]

Sent: Thursday, September 06, 2012 1:04 PM

To: Leddick, Jesse (FWE)

Subject: RE: Shepley (NHESP 12-31152) - Following Up

Jesse,

Please find attached a proposed restoration plan for areas that are being disturbed during installation of the Shepley Landfill cut-off wall. About 1.2 acres along the edge of the landfill need to be restored this fall.

Depending on how it performs, the proposed warm season mix could also be used to restore upland areas disturbed by the other two projects in subsequent years. The round house project is on hold because of construction difficulties and the Red Cove work is currently not funded.

Thanks

Mike

Michael Penko

Ecologist

US Army Corps of Engineers

New England District

696 Virginia Road

Concord, MA 01742

978-318-8139

Classification: UNCLASSIFIED

Caveats: NONE



## Shepley Landfill – Cutoff Wall Area Restoration

### Existing Restoration Plan

Based on review of 90% Plans and Specs the contractor is required to install 4" of topsoil (1.5 to 20% organic content) obtained from offsite (Section 2260). The specs don't seem to include a permanent seed mix; Section 2370 mentions use of annual and winter rye for temporary cover. In an email dated September 4, 2012 use of New England Erosion/Restoration Mix (for dry sites) and New England Erosion/Restoration Mix (for detention basins and moist sites) is recommended.

### New England District Recommended Restoration Plan

- 1) Prepare subsoil as described in Section 2260.
- 2) Top-dress with 4 inches of sandy subsoil material already stockpiled on site (a moderate number of small (< 6") rocks can be tolerated). Do not apply topsoil.
- 3) In flat dry areas broadcast warmseason grass seed mix (see below) Track seed into surface soil using a small to medium sized tracked vehicle such as a bobcat (2 passes, 100% coverage each pass). Seed between October 15 and November 15.
- 4) Hydroseed any dry sloped areas which may be prone to erosion with New England Erosion/Restoration Mix (for Dry sites). If slopes are greater than 3:1, install topsoil and use matting. Matting should be wildlife friendly (i.e. free of poly mesh netting).
- 5) Hydroseed or broadcast seed any swales or wet areas with New England Erosion/Restoration Mix (for detention basins and moist sites). Install wildlife friendly matting in swales as needed to control erosion.

| Species/Variety                          | Pounds/Acre<br>Pure Live Seed |
|------------------------------------------|-------------------------------|
| Niagara or Kaw Big bluestem              | 4                             |
| Aldous, Camper, or Blaze Little bluestem | 6                             |
| Rumsey, Osage, or NE-54 Indiangrass      | 2                             |
| Blue false indigo                        | 0.01                          |
| Lance leaved coreopsis                   | 0.05                          |
| Perennial lupine                         | 0.05                          |
| Blackeyed susan                          | 0.1                           |

Eliminated  
on 9/27/12

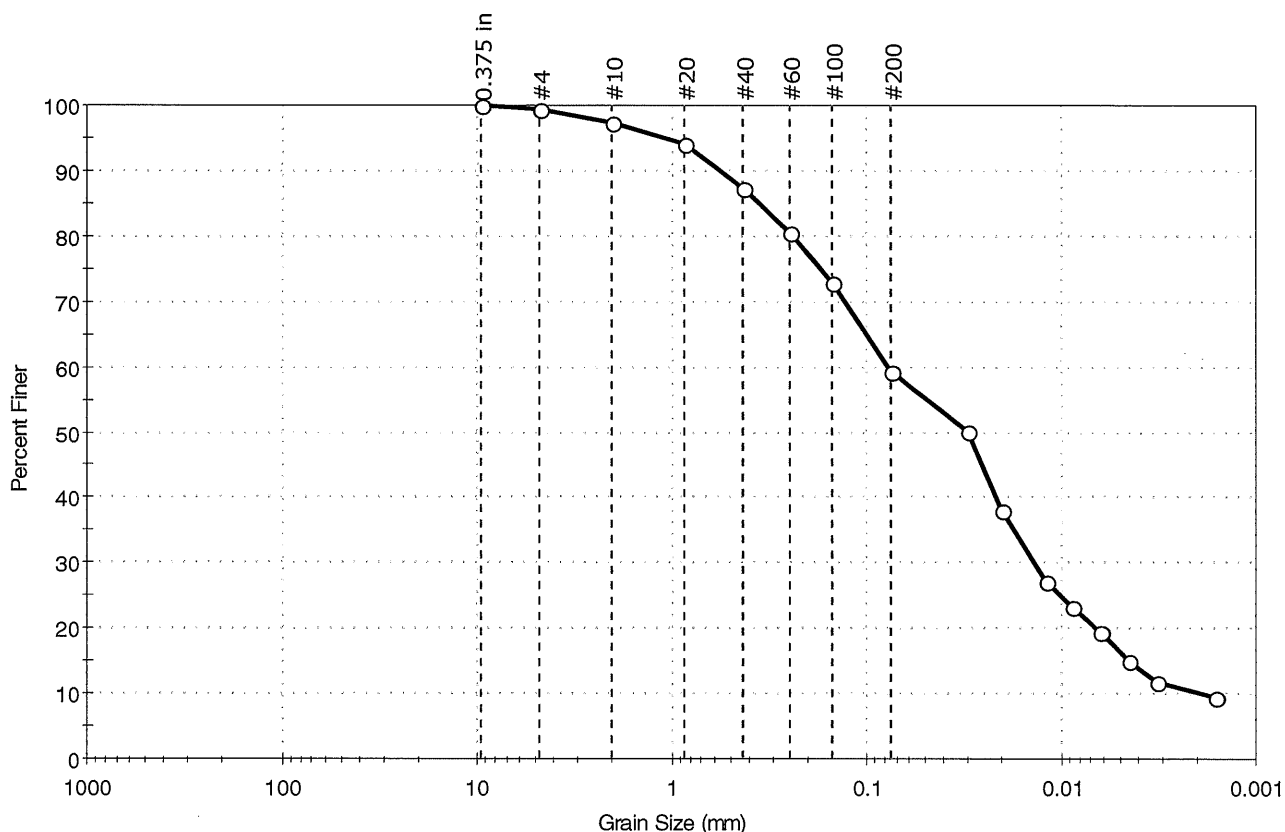


ERS

September 4, 2012

|                                                                             |                       |
|-----------------------------------------------------------------------------|-----------------------|
| Client: Moretrench American Corp.                                           | Project No: GTX-11659 |
| Project: Shepley Landfill                                                   | Tested By: jbr        |
| Location: Devens, MA                                                        | Checked By: n/a       |
| Boring ID: ---                                                              | Sample Type: bag      |
| Sample ID: 75-25 Mix Sample                                                 | Test Date: 09/06/12   |
| Depth: ---                                                                  | Test Id: 248900       |
| Test Comment: ---                                                           |                       |
| Sample Description: Moist, yellowish brown clayey sand (soil-bentonite mix) |                       |
| Sample Comment: ---                                                         |                       |

## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
|----------|----------|--------|--------------------|
| --       | 0.7      | 39.9   | 59.4               |

| Sieve Name | Sieve Size, mm     | Percent Finer | Spec. Percent | Complies |
|------------|--------------------|---------------|---------------|----------|
| 0.375 in   | 9.50               | 100           |               |          |
| #4         | 4.75               | 99            |               |          |
| #10        | 2.00               | 97            |               |          |
| #20        | 0.85               | 94            |               |          |
| #40        | 0.42               | 87            |               |          |
| #60        | 0.25               | 81            |               |          |
| #100       | 0.15               | 73            |               |          |
| #200       | 0.075              | 59            |               |          |
| ---        | Particle Size (mm) | Percent Finer | Spec. Percent | Complies |
| ---        | 0.0307             | 50            |               |          |
| ---        | 0.0205             | 38            |               |          |
| ---        | 0.0121             | 27            |               |          |
| ---        | 0.0088             | 23            |               |          |
| ---        | 0.0063             | 20            |               |          |
| ---        | 0.0045             | 15            |               |          |
| ---        | 0.0032             | 12            |               |          |
| ---        | 0.0016             | 10            |               |          |

### Coefficients

|                             |                             |
|-----------------------------|-----------------------------|
| D <sub>85</sub> = 0.3565 mm | D <sub>30</sub> = 0.0139 mm |
| D <sub>60</sub> = 0.0774 mm | D <sub>15</sub> = 0.0046 mm |
| D <sub>50</sub> = 0.0306 mm | D <sub>10</sub> = 0.0019 mm |
| C <sub>u</sub> = N/A        | C <sub>c</sub> = N/A        |

### Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

### Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---



|                     |                                                         |             |        |
|---------------------|---------------------------------------------------------|-------------|--------|
| Client:             | Moretrench American Corp.                               |             |        |
| Project Name:       | Shepley Landfill                                        |             |        |
| Project Location:   | Devens, MA                                              |             |        |
| GTX #:              | 11659                                                   |             |        |
| Start Date:         | 9/5/2012                                                | Tested By:  | md/ema |
| End Date:           | 9/10/2012                                               | Checked By: | jdt    |
| Boring #:           | ---                                                     |             |        |
| Sample #:           | 75-25 Mix                                               |             |        |
| Depth:              | ---                                                     |             |        |
| Visual Description: | Moist, yellowish brown clayey sand (soil-bentonite mix) |             |        |

## Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter by ASTM D 5084 Constant Volume

|                     |                                                                                                                       |                 |                          |
|---------------------|-----------------------------------------------------------------------------------------------------------------------|-----------------|--------------------------|
| Sample Type:        | Remolded                                                                                                              | Permeant Fluid: | De-aired Distilled water |
| Orientation:        | Vertical                                                                                                              | Cell #:         | 1/23/1                   |
| Sample Preparation: | Test specimen compacted with moderate effort at the as-received moisture content . Trimmings moisture content = 29.9% |                 |                          |

| Parameter               | Initial | Final |
|-------------------------|---------|-------|
| Height, in              | 2.10    | 1.97  |
| Diameter, in            | 2.85    | 2.90  |
| Area, in <sup>2</sup>   | 6.38    | 6.61  |
| Volume, in <sup>3</sup> | 13.4    | 13.0  |
| Mass, g                 | 441     | 405   |
| Bulk Density, pcf       | 125     | 118   |
| Moisture Content, %     | 29.6    | 19.1  |
| Dry Density, pcf        | 96.5    | 99.4  |
| Degree of Saturation, % | ---     | 99    |

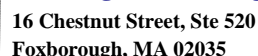
### B COEFFICIENT DETERMINATION

|                       |      |                          |      |
|-----------------------|------|--------------------------|------|
| Cell Pressure, psi:   | 95.1 | Pressure Increment, psi: | 5.00 |
| Sample Pressure, psi: | 90.3 | B Coefficient:           | 0.98 |

### FLOW DATA

| Date | Trial # | Pressure, psi |        | Manometer Readings |                |                                | Elapsed Time, sec | Gradient | Permeability K, cm/sec | Temp, °C | R <sub>t</sub> | Permeability K @ 20 °C, cm/sec |
|------|---------|---------------|--------|--------------------|----------------|--------------------------------|-------------------|----------|------------------------|----------|----------------|--------------------------------|
|      |         | Cell          | Sample | Z <sub>1</sub>     | Z <sub>2</sub> | Z <sub>1</sub> -Z <sub>2</sub> |                   |          |                        |          |                |                                |
| 9/7  | 5       | 90            | 85     | 11.0               | 10.9           | 0.1                            | 31                | 27.7     | 8.6E-08                | 20       | 1.000          | 8.6E-08                        |
| 9/7  | 6       | 90            | 85     | 11.0               | 10.9           | 0.1                            | 31                | 27.7     | 8.6E-08                | 20       | 1.000          | 8.6E-08                        |
| 9/7  | 7       | 90            | 85     | 11.0               | 10.9           | 0.1                            | 32                | 27.7     | 8.4E-08                | 20       | 1.000          | 8.4E-08                        |
| 9/7  | 8       | 90            | 85     | 11.0               | 10.9           | 0.1                            | 32                | 27.7     | 8.4E-08                | 20       | 1.000          | 8.4E-08                        |

**PERMEABILITY AT 20° C:  $8.5 \times 10^{-8}$  cm/sec (@ 5 psi effective stress)**



Sheet 1 of 1

| Casing    | Sampler |
|-----------|---------|
| Type: PVC | NA      |
| Size: 2"  | NA      |
| Hammer    | NA      |
| Pneumatic | NA      |

|                    |           |
|--------------------|-----------|
| Casing Elevation:  | 237.54    |
| Surface Elevation: | 233.80    |
| Wellhead Type:     | Standpipe |

| Sample Information |           |                 |                |          |            |             | Start Date:                                                                                      | 10/10/2012          | Casing Elevation:  | 237.54                                    |
|--------------------|-----------|-----------------|----------------|----------|------------|-------------|--------------------------------------------------------------------------------------------------|---------------------|--------------------|-------------------------------------------|
|                    |           |                 |                |          |            |             | Completion Date:                                                                                 | 10/10/2012          | Surface Elevation: | 233.80                                    |
|                    |           |                 |                |          |            |             | Wellhead Type: Standpipe                                                                         |                     |                    |                                           |
| Depth              | Sample ID | Pen./Rec. (in.) | Interval (Ft.) | Blows/6" | PID (ppmv) | Sample Type | Sample Description                                                                               | Stratum Change (ft) | Notes              | Test Boring/ Monitoring Well Construction |
| 2                  |           |                 |                |          |            |             |                                                                                                  |                     |                    |                                           |
| 4                  |           |                 |                |          |            |             |                                                                                                  |                     |                    |                                           |
| 6                  |           |                 | 5-7            | 8-3-2-2  | NA         | C           | 2.5Y (4/2) dark grayish brown, dry, well sorted fine to medium sand, trace fine rounded gravel.  |                     |                    |                                           |
| 8                  |           |                 |                |          |            |             |                                                                                                  |                     |                    |                                           |
| 10                 |           |                 |                |          |            |             |                                                                                                  |                     |                    |                                           |
| 12                 |           |                 | 10-12          | 4-4-5-5  | NA         | C           | 2.5Y (6/3) light yellowish brown, dry, well sorted fine to med. Sand, trace fine rounded gravel. |                     |                    |                                           |
| 14                 |           |                 |                |          |            |             |                                                                                                  |                     |                    |                                           |
| 16                 |           |                 | 15-17          | 6-4-4-6  | NA         | C           | 10YR (5/6) yellowish brown, dry, fine to med. Sand, trace fine rounded gravel, trace silt.       |                     |                    |                                           |
| 18                 |           |                 |                |          |            |             |                                                                                                  |                     |                    |                                           |
| 20                 |           |                 |                |          |            |             |                                                                                                  |                     |                    |                                           |
| 22                 |           | 14/24           | 20-22          | 2-2-3-4  | NA         | C           | 2.5Y (5/3) light olive brown, wet, sat., fine to medium sand.                                    |                     |                    |                                           |
| 24                 |           |                 |                |          |            |             |                                                                                                  |                     |                    |                                           |
| 26                 |           | 21/24           | 25-27          | 1-1-1-1  | NA         | C           | 2.5Y (5/4) light olive brown, wet, sat., fine to medium sand.                                    |                     |                    |                                           |
| 28                 |           |                 |                |          |            |             |                                                                                                  |                     |                    |                                           |
| 30                 |           |                 |                |          |            |             |                                                                                                  |                     |                    |                                           |
| 32                 |           |                 | 30-32          | 1-3-4-7  | NA         | C           | 2.5Y (5/6) light olive brown, wet, sat. fine to medium sand.                                     |                     |                    |                                           |
| 34                 |           |                 |                |          |            |             |                                                                                                  |                     |                    |                                           |


Notes:


- 1) Technical Drilling Services of Sterling, M/
- 2) Hollow Stem Auger


Key:


- Cement
- Native Backfill Material
- Grout
- Bentonite
- Sand

Remarks: 1) Stratification lines represent approximate boundaries between soil types and the transition may be gradual. Water level readings have been completed at times and under conditions stated. Fluctuations of groundwater may occur due to factors other than those present at the time measurements were made.  
2) Sample is designated as either "C" for composite or "GS" for a discrete grab sample.


|  <b>Sovereign Consulting Inc.</b><br>16 Chestnut Street, Ste 520<br>Foxborough, MA 02035                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                | Boring/Well ID: <b>PZ-12-02</b>                                                                                                                                                                                              |                | Sheet <u>  1  </u> of <u>  1  </u>                                                                                                                                                                                                          |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-------------|--------------------------|-----------|-----------|-----------------|----------------|----------|------------|-------------|--------------------------------------------------------------------------------|---|--------------------|-------|-------------------------------------------------------------------------------------------------------------------------|---------|----------------------|-------------------------------------------|---|--|--|--|--|--|--|----|--|--|--|--|--|--|----|--|--|-------|---------|----|---|----|--|--|--|--|--|--|----|--|-------|-------|---------|----|---|----|--|--|--|--|--|--|----|--|--|--|--|--|--|----|--|-------|-------|---------|----|---|----|--|--|--|--|--|--|----|--|-------|-------|---------|----|---|----|--|--|--|--|--|--|----|--|--|--|--|--|--|----|--|--|-------|---------|----|---|----|--|--|--|--|--|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|--------------------------------------------------------------|------------------------------------------------------|--|--|--|--|--|--|--|--|--|--|
| Client: U.S.A.C.E.<br>Project: Shepley's Hill Landfill Barrier Wall<br>Project Number: AC001.02B<br>Location: Fort Devens, MA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                | Drilling Co.: TDS <sup>1</sup><br>Drill Rig: HSA <sup>2</sup> ATV<br>Drill Method: Hollow Stem Auger<br>Foreman: Brett<br>SCI Inspector: Mykel Mendes<br>Start Date: 10/10/2012<br>Completion Date: 10/10/2012               |                | <table border="1"> <tr> <th>Casing</th> <th>Sampler</th> </tr> <tr> <td>Type: PVC</td> <td>NA</td> </tr> <tr> <td>Size: 2"</td> <td>NA</td> </tr> <tr> <td>Hammer</td> <td>NA</td> </tr> <tr> <td>Pneumatic</td> <td>NA</td> </tr> </table> |            | Casing      | Sampler                  | Type: PVC | NA        | Size: 2"        | NA             | Hammer   | NA         | Pneumatic   | NA                                                                             |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| Casing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Sampler                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| Type: PVC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | NA                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| Size: 2"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | NA                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| Hammer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | NA                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| Pneumatic                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | NA                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| <table border="1"> <tr> <th colspan="6">Sample Information</th> </tr> <tr> <th>Depth</th> <th>Sample ID</th> <th>Pen./Rec. (in.)</th> <th>Interval (Ft.)</th> <th>Blows/6"</th> <th>PID (ppmv)</th> <th>Sample Type</th> </tr> </table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                | Sample Information                                                                                                                                                                                                           |                |                                                                                                                                                                                                                                             |            |             |                          | Depth     | Sample ID | Pen./Rec. (in.) | Interval (Ft.) | Blows/6" | PID (ppmv) | Sample Type | <table border="1"> <tr> <th colspan="2">Sample Description</th> </tr> </table> |   | Sample Description |       | <table border="1"> <tr> <th>Stratum Change (ft.)</th> <th>Test Boring/ Monitoring Well Construction</th> </tr> </table> |         | Stratum Change (ft.) | Test Boring/ Monitoring Well Construction |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| Sample Information                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| Depth                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Sample ID                                                                                                                                                                                                                                                      | Pen./Rec. (in.)                                                                                                                                                                                                              | Interval (Ft.) | Blows/6"                                                                                                                                                                                                                                    | PID (ppmv) | Sample Type |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| Sample Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| Stratum Change (ft.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Test Boring/ Monitoring Well Construction                                                                                                                                                                                                                      |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| <table border="1"> <tr><td>2</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>4</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>6</td><td></td><td>10/24</td><td>5-7</td><td>2-3-3-4</td><td>NA</td><td>C</td></tr> <tr><td>8</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>10</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>12</td><td></td><td></td><td>10-12</td><td>4-4-5-5</td><td>NA</td><td>C</td></tr> <tr><td>14</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>16</td><td></td><td>21/24</td><td>15-17</td><td>4-3-3-5</td><td>NA</td><td>C</td></tr> <tr><td>18</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>20</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>22</td><td></td><td>24/24</td><td>20-22</td><td>2-3-3-4</td><td>NA</td><td>C</td></tr> <tr><td>24</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>26</td><td></td><td>22/24</td><td>25-27</td><td>3-4-5-5</td><td>NA</td><td>C</td></tr> <tr><td>28</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>30</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>32</td><td></td><td></td><td>30-32</td><td>7-9-6-7</td><td>NA</td><td>C</td></tr> <tr><td>34</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table> |                                                                                                                                                                                                                                                                | 2                                                                                                                                                                                                                            |                |                                                                                                                                                                                                                                             |            |             |                          |           | 4         |                 |                |          |            |             |                                                                                | 6 |                    | 10/24 | 5-7                                                                                                                     | 2-3-3-4 | NA                   | C                                         | 8 |  |  |  |  |  |  | 10 |  |  |  |  |  |  | 12 |  |  | 10-12 | 4-4-5-5 | NA | C | 14 |  |  |  |  |  |  | 16 |  | 21/24 | 15-17 | 4-3-3-5 | NA | C | 18 |  |  |  |  |  |  | 20 |  |  |  |  |  |  | 22 |  | 24/24 | 20-22 | 2-3-3-4 | NA | C | 24 |  |  |  |  |  |  | 26 |  | 22/24 | 25-27 | 3-4-5-5 | NA | C | 28 |  |  |  |  |  |  | 30 |  |  |  |  |  |  | 32 |  |  | 30-32 | 7-9-6-7 | NA | C | 34 |  |  |  |  |  |  | <table border="1"> <tr> <td>2.5Y (6/3) light yellowish brown, dry well sorted fine to medium sand.</td> <td rowspan="18"> <div>Well completed with standpipe over riser, 3 ft above ground surface</div> <div>Native backfill 1'-20'</div> <div>Bentonite, 20'-22'</div> <div>#2 Morie Sand, 36'-22'</div> <div>2" Schedule 40 PVC Screen with 2' of 0.010" Slotted Screen 24'-34'</div> </td> </tr> <tr><td>2.5Y (6/4) light yellowish brown, wet (damp) fine to medium sand, some silt.</td></tr> <tr><td>2.5Y (6/4) light yellowish brown, damp (wet at bottom 2" of split spoon, well sorted fine to medium sand.</td></tr> <tr><td>2.5Y(5/4) light olive brown, wet, sat., fine to medium sand.</td></tr> <tr><td>2.5Y (5/4) light olive brown, wet, sat., fine sand and silt.</td></tr> <tr><td>2.5Y (5/4) light olive brown, wet, sat., fine sands.</td></tr> <tr><td></td></tr> <tr><td></td></tr> <tr><td></td></tr> <tr><td></td></tr> <tr><td></td></tr> <tr><td></td></tr> <tr><td></td></tr> <tr><td></td></tr> <tr><td></td></tr> <tr><td></td></tr> </table> |  | 2.5Y (6/3) light yellowish brown, dry well sorted fine to medium sand. | <div>Well completed with standpipe over riser, 3 ft above ground surface</div> <div>Native backfill 1'-20'</div> <div>Bentonite, 20'-22'</div> <div>#2 Morie Sand, 36'-22'</div> <div>2" Schedule 40 PVC Screen with 2' of 0.010" Slotted Screen 24'-34'</div> | 2.5Y (6/4) light yellowish brown, wet (damp) fine to medium sand, some silt. | 2.5Y (6/4) light yellowish brown, damp (wet at bottom 2" of split spoon, well sorted fine to medium sand. | 2.5Y(5/4) light olive brown, wet, sat., fine to medium sand. | 2.5Y (5/4) light olive brown, wet, sat., fine sand and silt. | 2.5Y (5/4) light olive brown, wet, sat., fine sands. |  |  |  |  |  |  |  |  |  |  |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                | 10/24                                                                                                                                                                                                                        | 5-7            | 2-3-3-4                                                                                                                                                                                                                                     | NA         | C           |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              | 10-12          | 4-4-5-5                                                                                                                                                                                                                                     | NA         | C           |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| 14                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| 16                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                | 21/24                                                                                                                                                                                                                        | 15-17          | 4-3-3-5                                                                                                                                                                                                                                     | NA         | C           |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| 18                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| 20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| 22                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                | 24/24                                                                                                                                                                                                                        | 20-22          | 2-3-3-4                                                                                                                                                                                                                                     | NA         | C           |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| 24                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| 26                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                | 22/24                                                                                                                                                                                                                        | 25-27          | 3-4-5-5                                                                                                                                                                                                                                     | NA         | C           |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| 28                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| 30                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| 32                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              | 30-32          | 7-9-6-7                                                                                                                                                                                                                                     | NA         | C           |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| 34                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| 2.5Y (6/3) light yellowish brown, dry well sorted fine to medium sand.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <div>Well completed with standpipe over riser, 3 ft above ground surface</div> <div>Native backfill 1'-20'</div> <div>Bentonite, 20'-22'</div> <div>#2 Morie Sand, 36'-22'</div> <div>2" Schedule 40 PVC Screen with 2' of 0.010" Slotted Screen 24'-34'</div> |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| 2.5Y (6/4) light yellowish brown, wet (damp) fine to medium sand, some silt.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| 2.5Y (6/4) light yellowish brown, damp (wet at bottom 2" of split spoon, well sorted fine to medium sand.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| 2.5Y(5/4) light olive brown, wet, sat., fine to medium sand.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| 2.5Y (5/4) light olive brown, wet, sat., fine sand and silt.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| 2.5Y (5/4) light olive brown, wet, sat., fine sands.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| Notes: 1) Technical Drilling Services of Sterling, M/<br>2) Hollow Stem Auger                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                | Key: <table border="1"> <tr><td></td><td>Cement</td></tr> <tr><td></td><td>Native Backfill Material</td></tr> <tr><td></td><td>Grout</td></tr> <tr><td></td><td>Bentonite</td></tr> <tr><td></td><td>Sand</td></tr> </table> |                |                                                                                                                                                                                                                                             | Cement     |             | Native Backfill Material |           | Grout     |                 | Bentonite      |          | Sand       |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                | Cement                                                                                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Native Backfill Material                                                                                                                                                                                                                                       |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Grout                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Bentonite                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Sand                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |
| Remarks: 1) Stratification lines represent approximate boundaries between soil types and the transition may be gradual. Water level readings have been completed at times and under conditions stated. Fluctuations of groundwater may occur due to factors other than those present at the time measurements were made.<br>2) Sample is designated as either "C" for composite or "GS" for a discrete grab sample.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |  |       |         |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                        |                                                                                                                                                                                                                                                                |                                                                              |                                                                                                           |                                                              |                                                              |                                                      |  |  |  |  |  |  |  |  |  |  |

|  <b>Sovereign Consulting Inc.</b><br>16 Chestnut Street, Ste 520<br>Foxborough, MA 02035                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                     | Boring/Well ID: <b>PZ-12-03</b>                                                                                                                                                                                              |                | Sheet <u>  1  </u> of <u>  1  </u>                                                                                                                                                                                                          |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-------------|--------------------------|-----------|-----------|-----------------|----------------|----------|------------|-------------|--------------------------------------------------------------------------------|---|--------------------|-------|-------------------------------------------------------------------------------------------------------------------------|----------|----------------------|-------------------------------------------|---|--|--|--|--|--|--|----|--|--|--|--|--|--|----|--|------|-------|---------|----|---|----|--|--|--|--|--|--|----|--|------|-------|----------|----|---|----|--|--|--|--|--|--|----|--|--|--|--|--|--|----|--|------|-------|---------|----|---|----|--|--|--|--|--|--|----|--|-------|-------|---------|----|---|----|--|--|--|--|--|--|----|--|--|--|--|--|--|----|--|-------|-------|-----------|----|---|----|--|--|--|--|--|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|---------------------------------------------------------------------|--|------------------------|--|--------------------|--|------------------------|--|--------------------------------------------------------------------|
| Client: U.S.A.C.E.<br>Project: Shepley's Hill Landfill Barrier Wall<br>Project Number: AC001.02B<br>Location: Fort Devens, MA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                     | Drilling Co.: TDS <sup>1</sup><br>Drill Rig: HSA <sup>2</sup> ATV<br>Drill Method: Hollow Stem Auger<br>Foreman: Brett<br>SCI Inspector: Mykel Mendes<br>Start Date: 10/10/2012<br>Completion Date: 10/10/2012               |                | <table border="1"> <tr> <th>Casing</th> <th>Sampler</th> </tr> <tr> <td>Type: PVC</td> <td>NA</td> </tr> <tr> <td>Size: 2"</td> <td>NA</td> </tr> <tr> <td>Hammer</td> <td>NA</td> </tr> <tr> <td>Pneumatic</td> <td>NA</td> </tr> </table> |            | Casing      | Sampler                  | Type: PVC | NA        | Size: 2"        | NA             | Hammer   | NA         | Pneumatic   | NA                                                                             |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| Casing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Sampler                                                             |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| Type: PVC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | NA                                                                  |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| Size: 2"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | NA                                                                  |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| Hammer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | NA                                                                  |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| Pneumatic                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | NA                                                                  |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| <table border="1"> <tr> <th colspan="6">Sample Information</th> </tr> <tr> <th>Depth</th> <th>Sample ID</th> <th>Pen./Rec. (in.)</th> <th>Interval (Ft.)</th> <th>Blows/6"</th> <th>PID (ppmv)</th> <th>Sample Type</th> </tr> </table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                     | Sample Information                                                                                                                                                                                                           |                |                                                                                                                                                                                                                                             |            |             |                          | Depth     | Sample ID | Pen./Rec. (in.) | Interval (Ft.) | Blows/6" | PID (ppmv) | Sample Type | <table border="1"> <tr> <th colspan="2">Sample Description</th> </tr> </table> |   | Sample Description |       | <table border="1"> <tr> <th>Stratum Change (ft.)</th> <th>Test Boring/ Monitoring Well Construction</th> </tr> </table> |          | Stratum Change (ft.) | Test Boring/ Monitoring Well Construction |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| Sample Information                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                     |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| Depth                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Sample ID                                                           | Pen./Rec. (in.)                                                                                                                                                                                                              | Interval (Ft.) | Blows/6"                                                                                                                                                                                                                                    | PID (ppmv) | Sample Type |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| Sample Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                     |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| Stratum Change (ft.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Test Boring/ Monitoring Well Construction                           |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| <table border="1"> <tr><td>2</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>4</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>6</td><td></td><td>12/24</td><td>5-7</td><td>12-8-4-4</td><td>NA</td><td>C</td></tr> <tr><td>8</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>10</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>12</td><td></td><td>6/24</td><td>10-12</td><td>7-4-3-2</td><td>NA</td><td>C</td></tr> <tr><td>14</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>16</td><td></td><td>6/24</td><td>15-17</td><td>13-8-4-2</td><td>NA</td><td>C</td></tr> <tr><td>18</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>20</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>22</td><td></td><td>3/24</td><td>20-22</td><td>3-2-4-4</td><td>NA</td><td>C</td></tr> <tr><td>24</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>26</td><td></td><td>24/24</td><td>25-27</td><td>6-4-6-7</td><td>NA</td><td>C</td></tr> <tr><td>28</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>30</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>32</td><td></td><td>24/24</td><td>30-32</td><td>7-11-9-10</td><td>NA</td><td>C</td></tr> <tr><td>34</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table> |                                                                     | 2                                                                                                                                                                                                                            |                |                                                                                                                                                                                                                                             |            |             |                          |           | 4         |                 |                |          |            |             |                                                                                | 6 |                    | 12/24 | 5-7                                                                                                                     | 12-8-4-4 | NA                   | C                                         | 8 |  |  |  |  |  |  | 10 |  |  |  |  |  |  | 12 |  | 6/24 | 10-12 | 7-4-3-2 | NA | C | 14 |  |  |  |  |  |  | 16 |  | 6/24 | 15-17 | 13-8-4-2 | NA | C | 18 |  |  |  |  |  |  | 20 |  |  |  |  |  |  | 22 |  | 3/24 | 20-22 | 3-2-4-4 | NA | C | 24 |  |  |  |  |  |  | 26 |  | 24/24 | 25-27 | 6-4-6-7 | NA | C | 28 |  |  |  |  |  |  | 30 |  |  |  |  |  |  | 32 |  | 24/24 | 30-32 | 7-11-9-10 | NA | C | 34 |  |  |  |  |  |  | <table border="1"> <tr> <td>2.5Y (4/3) olive brown, dry, top 4" of spoon organic topsoil, fine to med. Sand, little silt, little subrounded gravel.</td> <td></td> </tr> <tr> <td>2.5Y (3/3) dark olive brown, dry to slightly damp, fine to med. Sand, some silts, trace coarse rounded gravel.</td> <td></td> </tr> <tr> <td>2.5Y (4/3) olive brown, damp, med. To coarse sand, some silts, little coarse rounded gravel. Rock fragments.</td> <td></td> </tr> <tr> <td>2.5Y (3/3) dark olive brown, wet, sat. med. To coarse sand, some silt, trace fine gravel.</td> <td></td> </tr> <tr> <td>2.5Y (3/3) dark olive brown, wet, sat., fine to med. Sand, little coarse sand.</td> <td></td> </tr> <tr> <td>10YR, (5/6) yellowish brown, wet, sat., fine to med. Sand, trace coarse sand.</td> <td></td> </tr> </table> |  | 2.5Y (4/3) olive brown, dry, top 4" of spoon organic topsoil, fine to med. Sand, little silt, little subrounded gravel. |  | 2.5Y (3/3) dark olive brown, dry to slightly damp, fine to med. Sand, some silts, trace coarse rounded gravel. |  | 2.5Y (4/3) olive brown, damp, med. To coarse sand, some silts, little coarse rounded gravel. Rock fragments. |  | 2.5Y (3/3) dark olive brown, wet, sat. med. To coarse sand, some silt, trace fine gravel. |  | 2.5Y (3/3) dark olive brown, wet, sat., fine to med. Sand, little coarse sand. |  | 10YR, (5/6) yellowish brown, wet, sat., fine to med. Sand, trace coarse sand. |  | <table border="1"> <tr> <td></td> <td>Well completed with standpipe over riser, 3 ft above ground surface</td> </tr> <tr> <td></td> <td>Native backfill 1'-20'</td> </tr> <tr> <td></td> <td>Bentonite, 20'-22'</td> </tr> <tr> <td></td> <td>#2 Morie Sand, 36'-22'</td> </tr> <tr> <td></td> <td>2" Schedule 40 PVC Screen with 2' of 0.010" Slotted Screen 24'-34'</td> </tr> </table> |  |  | Well completed with standpipe over riser, 3 ft above ground surface |  | Native backfill 1'-20' |  | Bentonite, 20'-22' |  | #2 Morie Sand, 36'-22' |  | 2" Schedule 40 PVC Screen with 2' of 0.010" Slotted Screen 24'-34' |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                     |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                     |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                     | 12/24                                                                                                                                                                                                                        | 5-7            | 12-8-4-4                                                                                                                                                                                                                                    | NA         | C           |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                     |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                     |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                     | 6/24                                                                                                                                                                                                                         | 10-12          | 7-4-3-2                                                                                                                                                                                                                                     | NA         | C           |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 14                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                     |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 16                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                     | 6/24                                                                                                                                                                                                                         | 15-17          | 13-8-4-2                                                                                                                                                                                                                                    | NA         | C           |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 18                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                     |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                     |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 22                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                     | 3/24                                                                                                                                                                                                                         | 20-22          | 3-2-4-4                                                                                                                                                                                                                                     | NA         | C           |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 24                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                     |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 26                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                     | 24/24                                                                                                                                                                                                                        | 25-27          | 6-4-6-7                                                                                                                                                                                                                                     | NA         | C           |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 28                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                     |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 30                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                     |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 32                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                     | 24/24                                                                                                                                                                                                                        | 30-32          | 7-11-9-10                                                                                                                                                                                                                                   | NA         | C           |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 34                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                     |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 2.5Y (4/3) olive brown, dry, top 4" of spoon organic topsoil, fine to med. Sand, little silt, little subrounded gravel.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                     |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 2.5Y (3/3) dark olive brown, dry to slightly damp, fine to med. Sand, some silts, trace coarse rounded gravel.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                     |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 2.5Y (4/3) olive brown, damp, med. To coarse sand, some silts, little coarse rounded gravel. Rock fragments.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                     |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 2.5Y (3/3) dark olive brown, wet, sat. med. To coarse sand, some silt, trace fine gravel.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                     |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 2.5Y (3/3) dark olive brown, wet, sat., fine to med. Sand, little coarse sand.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                     |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 10YR, (5/6) yellowish brown, wet, sat., fine to med. Sand, trace coarse sand.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                     |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Well completed with standpipe over riser, 3 ft above ground surface |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Native backfill 1'-20'                                              |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Bentonite, 20'-22'                                                  |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | #2 Morie Sand, 36'-22'                                              |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 2" Schedule 40 PVC Screen with 2' of 0.010" Slotted Screen 24'-34'  |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| Notes: 1) Technical Drilling Services of Sterling, M/<br>2) Hollow Stem Auger                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                     | Key: <table border="1"> <tr><td></td><td>Cement</td></tr> <tr><td></td><td>Native Backfill Material</td></tr> <tr><td></td><td>Grout</td></tr> <tr><td></td><td>Bentonite</td></tr> <tr><td></td><td>Sand</td></tr> </table> |                |                                                                                                                                                                                                                                             | Cement     |             | Native Backfill Material |           | Grout     |                 | Bentonite      |          | Sand       |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Cement                                                              |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Native Backfill Material                                            |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Grout                                                               |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Bentonite                                                           |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Sand                                                                |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| Remarks: 1) Stratification lines represent approximate boundaries between soil types and the transition may be gradual. Water level readings have been completed at times and under conditions stated. Fluctuations of groundwater may occur due to factors other than those present at the time measurements were made.<br>2) Sample is designated as either "C" for composite or "GS" for a discrete grab sample.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                     |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |       |                                                                                                                         |          |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |      |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |           |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                                         |  |                                                                                                                |  |                                                                                                              |  |                                                                                           |  |                                                                                |  |                                                                               |  |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |

|  <b>Sovereign Consulting Inc.</b><br>16 Chestnut Street, Ste 520<br>Foxborough, MA 02035                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                 | Boring/Well ID: <b>PZ-12-04</b>                                                                                                                                                                                              |                | Sheet <u>  1  </u> of <u>  1  </u>                                                                                                                                                                                                          |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |      |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |  |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |                                                                                               |  |                                                                                          |  |                                                                      |  |                                                                            |  |                                                                                                                 |  |                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-------------|--------------------------|-----------|-----------|-----------------|----------------|----------|------------|-------------|--------------------------------------------------------------------------------|---|--------------------|------|-------------------------------------------------------------------------------------------------------------------------|---------|----------------------|-------------------------------------------|---|--|--|--|--|--|--|----|--|--|--|--|--|--|----|--|------|-------|---------|----|---|----|--|--|--|--|--|--|----|--|-------|-------|---------|----|---|----|--|--|--|--|--|--|----|--|--|--|--|--|--|----|--|------|-------|---------|----|---|----|--|--|--|--|--|--|----|--|-------|-------|----------|----|---|----|--|--|--|--|--|--|----|--|--|--|--|--|--|----|--|-------|-------|--|----|---|----|--|--|--|--|--|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|-----------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------|--|----------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|---------------------------------------------------------------------|--|------------------------|--|--------------------|--|------------------------|--|--------------------------------------------------------------------|
| Client: U.S.A.C.E.<br>Project: Shepley's Hill Landfill Barrier Wall<br>Project Number: AC001.02B<br>Location: Fort Devens, MA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                 | Drilling Co.: TDS <sup>1</sup><br>Drill Rig: HSA <sup>2</sup> ATV<br>Drill Method: Hollow Stem Auger<br>Foreman: Brett<br>SCI Inspector: Mykel Mendes<br>Start Date: 10/10/2012<br>Completion Date: 10/10/2012               |                | <table border="1"> <tr> <th>Casing</th> <th>Sampler</th> </tr> <tr> <td>Type: PVC</td> <td>NA</td> </tr> <tr> <td>Size: 2"</td> <td>NA</td> </tr> <tr> <td>Hammer</td> <td>NA</td> </tr> <tr> <td>Pneumatic</td> <td>NA</td> </tr> </table> |            | Casing      | Sampler                  | Type: PVC | NA        | Size: 2"        | NA             | Hammer   | NA         | Pneumatic   | NA                                                                             |   |                    |      |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |  |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |                                                                                               |  |                                                                                          |  |                                                                      |  |                                                                            |  |                                                                                                                 |  |                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| Casing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Sampler                                                                                                         |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |      |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |  |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |                                                                                               |  |                                                                                          |  |                                                                      |  |                                                                            |  |                                                                                                                 |  |                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| Type: PVC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | NA                                                                                                              |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |      |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |  |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |                                                                                               |  |                                                                                          |  |                                                                      |  |                                                                            |  |                                                                                                                 |  |                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| Size: 2"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | NA                                                                                                              |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |      |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |  |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |                                                                                               |  |                                                                                          |  |                                                                      |  |                                                                            |  |                                                                                                                 |  |                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| Hammer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | NA                                                                                                              |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |      |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |  |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |                                                                                               |  |                                                                                          |  |                                                                      |  |                                                                            |  |                                                                                                                 |  |                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| Pneumatic                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | NA                                                                                                              |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |      |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |  |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |                                                                                               |  |                                                                                          |  |                                                                      |  |                                                                            |  |                                                                                                                 |  |                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| <table border="1"> <tr> <th colspan="6">Sample Information</th> </tr> <tr> <th>Depth</th> <th>Sample ID</th> <th>Pen./Rec. (in.)</th> <th>Interval (Ft.)</th> <th>Blows/6"</th> <th>PID (ppmv)</th> <th>Sample Type</th> </tr> </table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                 | Sample Information                                                                                                                                                                                                           |                |                                                                                                                                                                                                                                             |            |             |                          | Depth     | Sample ID | Pen./Rec. (in.) | Interval (Ft.) | Blows/6" | PID (ppmv) | Sample Type | <table border="1"> <tr> <th colspan="2">Sample Description</th> </tr> </table> |   | Sample Description |      | <table border="1"> <tr> <th>Stratum Change (ft.)</th> <th>Test Boring/ Monitoring Well Construction</th> </tr> </table> |         | Stratum Change (ft.) | Test Boring/ Monitoring Well Construction |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |  |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |                                                                                               |  |                                                                                          |  |                                                                      |  |                                                                            |  |                                                                                                                 |  |                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| Sample Information                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                 |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |      |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |  |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |                                                                                               |  |                                                                                          |  |                                                                      |  |                                                                            |  |                                                                                                                 |  |                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| Depth                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Sample ID                                                                                                       | Pen./Rec. (in.)                                                                                                                                                                                                              | Interval (Ft.) | Blows/6"                                                                                                                                                                                                                                    | PID (ppmv) | Sample Type |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |      |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |  |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |                                                                                               |  |                                                                                          |  |                                                                      |  |                                                                            |  |                                                                                                                 |  |                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| Sample Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                 |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |      |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |  |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |                                                                                               |  |                                                                                          |  |                                                                      |  |                                                                            |  |                                                                                                                 |  |                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| Stratum Change (ft.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Test Boring/ Monitoring Well Construction                                                                       |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |      |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |  |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |                                                                                               |  |                                                                                          |  |                                                                      |  |                                                                            |  |                                                                                                                 |  |                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| <table border="1"> <tr><td>2</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>4</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>6</td><td></td><td>6/24</td><td>5-7</td><td>5-4-8-7</td><td>NA</td><td>C</td></tr> <tr><td>8</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>10</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>12</td><td></td><td>6/24</td><td>10-12</td><td>7-4-3-2</td><td>NA</td><td>C</td></tr> <tr><td>14</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>16</td><td></td><td>12/24</td><td>15-17</td><td>7-7-7-5</td><td>NA</td><td>C</td></tr> <tr><td>18</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>20</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>22</td><td></td><td>5/24</td><td>20-22</td><td>3-6-9-8</td><td>NA</td><td>C</td></tr> <tr><td>24</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>26</td><td></td><td>24/24</td><td>25-27</td><td>4-5-9-26</td><td>NA</td><td>C</td></tr> <tr><td>28</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>30</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>32</td><td></td><td>24/24</td><td>30-32</td><td></td><td>NA</td><td>C</td></tr> <tr><td>34</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table> |                                                                                                                 | 2                                                                                                                                                                                                                            |                |                                                                                                                                                                                                                                             |            |             |                          |           | 4         |                 |                |          |            |             |                                                                                | 6 |                    | 6/24 | 5-7                                                                                                                     | 5-4-8-7 | NA                   | C                                         | 8 |  |  |  |  |  |  | 10 |  |  |  |  |  |  | 12 |  | 6/24 | 10-12 | 7-4-3-2 | NA | C | 14 |  |  |  |  |  |  | 16 |  | 12/24 | 15-17 | 7-7-7-5 | NA | C | 18 |  |  |  |  |  |  | 20 |  |  |  |  |  |  | 22 |  | 5/24 | 20-22 | 3-6-9-8 | NA | C | 24 |  |  |  |  |  |  | 26 |  | 24/24 | 25-27 | 4-5-9-26 | NA | C | 28 |  |  |  |  |  |  | 30 |  |  |  |  |  |  | 32 |  | 24/24 | 30-32 |  | NA | C | 34 |  |  |  |  |  |  | <table border="1"> <tr> <td></td> <td>2.5Y (4/2) dark grayish brown, dry, well sorted fine to med. Sand, trace rounded fine gravel.</td> </tr> <tr> <td></td> <td>2.5Y (5/3) light olive brown, dry, well sorted fine to med. Sand, little rock fragments.</td> </tr> <tr> <td></td> <td>2.5Y (4/3) olive brown, dry, fine to med.sand, trace rounded gravel.</td> </tr> <tr> <td></td> <td>2.5Y (4/3) olive brown, wet, fine to med. Sand, trace fine rounded gravel.</td> </tr> <tr> <td></td> <td>2.5Y (5/3) light olive brown, wet, sat., well graded coarse sand, some med. To fine sand, trace rounded gravel.</td> </tr> <tr> <td></td> <td>2.5Y (4/4) olive brown, wet, sat., fine to med. sand, little coarse sand, trace rounded coarse gravel.</td> </tr> </table> |  |  | 2.5Y (4/2) dark grayish brown, dry, well sorted fine to med. Sand, trace rounded fine gravel. |  | 2.5Y (5/3) light olive brown, dry, well sorted fine to med. Sand, little rock fragments. |  | 2.5Y (4/3) olive brown, dry, fine to med.sand, trace rounded gravel. |  | 2.5Y (4/3) olive brown, wet, fine to med. Sand, trace fine rounded gravel. |  | 2.5Y (5/3) light olive brown, wet, sat., well graded coarse sand, some med. To fine sand, trace rounded gravel. |  | 2.5Y (4/4) olive brown, wet, sat., fine to med. sand, little coarse sand, trace rounded coarse gravel. | <table border="1"> <tr> <td></td> <td>Well completed with standpipe over riser, 3 ft above ground surface</td> </tr> <tr> <td></td> <td>Native backfill 1'-20'</td> </tr> <tr> <td></td> <td>Bentonite, 20'-22'</td> </tr> <tr> <td></td> <td>#2 Morie Sand, 36'-22'</td> </tr> <tr> <td></td> <td>2" Schedule 40 PVC Screen with 2' of 0.010" Slotted Screen 24'-34'</td> </tr> </table> |  |  | Well completed with standpipe over riser, 3 ft above ground surface |  | Native backfill 1'-20' |  | Bentonite, 20'-22' |  | #2 Morie Sand, 36'-22' |  | 2" Schedule 40 PVC Screen with 2' of 0.010" Slotted Screen 24'-34' |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                 |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |      |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |  |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |                                                                                               |  |                                                                                          |  |                                                                      |  |                                                                            |  |                                                                                                                 |  |                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                 |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |      |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |  |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |                                                                                               |  |                                                                                          |  |                                                                      |  |                                                                            |  |                                                                                                                 |  |                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                 | 6/24                                                                                                                                                                                                                         | 5-7            | 5-4-8-7                                                                                                                                                                                                                                     | NA         | C           |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |      |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |  |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |                                                                                               |  |                                                                                          |  |                                                                      |  |                                                                            |  |                                                                                                                 |  |                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                 |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |      |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |  |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |                                                                                               |  |                                                                                          |  |                                                                      |  |                                                                            |  |                                                                                                                 |  |                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                 |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |      |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |  |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |                                                                                               |  |                                                                                          |  |                                                                      |  |                                                                            |  |                                                                                                                 |  |                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                 | 6/24                                                                                                                                                                                                                         | 10-12          | 7-4-3-2                                                                                                                                                                                                                                     | NA         | C           |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |      |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |  |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |                                                                                               |  |                                                                                          |  |                                                                      |  |                                                                            |  |                                                                                                                 |  |                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 14                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                 |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |      |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |  |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |                                                                                               |  |                                                                                          |  |                                                                      |  |                                                                            |  |                                                                                                                 |  |                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 16                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                 | 12/24                                                                                                                                                                                                                        | 15-17          | 7-7-7-5                                                                                                                                                                                                                                     | NA         | C           |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |      |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |  |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |                                                                                               |  |                                                                                          |  |                                                                      |  |                                                                            |  |                                                                                                                 |  |                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 18                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                 |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |      |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |  |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |                                                                                               |  |                                                                                          |  |                                                                      |  |                                                                            |  |                                                                                                                 |  |                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                 |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |      |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |  |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |                                                                                               |  |                                                                                          |  |                                                                      |  |                                                                            |  |                                                                                                                 |  |                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 22                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                 | 5/24                                                                                                                                                                                                                         | 20-22          | 3-6-9-8                                                                                                                                                                                                                                     | NA         | C           |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |      |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |  |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |                                                                                               |  |                                                                                          |  |                                                                      |  |                                                                            |  |                                                                                                                 |  |                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 24                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                 |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |      |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |  |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |                                                                                               |  |                                                                                          |  |                                                                      |  |                                                                            |  |                                                                                                                 |  |                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 26                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                 | 24/24                                                                                                                                                                                                                        | 25-27          | 4-5-9-26                                                                                                                                                                                                                                    | NA         | C           |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |      |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |  |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |                                                                                               |  |                                                                                          |  |                                                                      |  |                                                                            |  |                                                                                                                 |  |                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 28                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                 |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |      |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |  |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |                                                                                               |  |                                                                                          |  |                                                                      |  |                                                                            |  |                                                                                                                 |  |                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 30                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                 |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |      |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |  |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |                                                                                               |  |                                                                                          |  |                                                                      |  |                                                                            |  |                                                                                                                 |  |                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 32                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                 | 24/24                                                                                                                                                                                                                        | 30-32          |                                                                                                                                                                                                                                             | NA         | C           |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |      |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |  |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |                                                                                               |  |                                                                                          |  |                                                                      |  |                                                                            |  |                                                                                                                 |  |                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| 34                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                 |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |      |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |  |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |                                                                                               |  |                                                                                          |  |                                                                      |  |                                                                            |  |                                                                                                                 |  |                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 2.5Y (4/2) dark grayish brown, dry, well sorted fine to med. Sand, trace rounded fine gravel.                   |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |      |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |  |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |                                                                                               |  |                                                                                          |  |                                                                      |  |                                                                            |  |                                                                                                                 |  |                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 2.5Y (5/3) light olive brown, dry, well sorted fine to med. Sand, little rock fragments.                        |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |      |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |  |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |                                                                                               |  |                                                                                          |  |                                                                      |  |                                                                            |  |                                                                                                                 |  |                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 2.5Y (4/3) olive brown, dry, fine to med.sand, trace rounded gravel.                                            |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |      |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |  |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |                                                                                               |  |                                                                                          |  |                                                                      |  |                                                                            |  |                                                                                                                 |  |                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 2.5Y (4/3) olive brown, wet, fine to med. Sand, trace fine rounded gravel.                                      |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |      |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |  |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |                                                                                               |  |                                                                                          |  |                                                                      |  |                                                                            |  |                                                                                                                 |  |                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 2.5Y (5/3) light olive brown, wet, sat., well graded coarse sand, some med. To fine sand, trace rounded gravel. |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |      |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |  |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |                                                                                               |  |                                                                                          |  |                                                                      |  |                                                                            |  |                                                                                                                 |  |                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 2.5Y (4/4) olive brown, wet, sat., fine to med. sand, little coarse sand, trace rounded coarse gravel.          |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |      |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |  |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |                                                                                               |  |                                                                                          |  |                                                                      |  |                                                                            |  |                                                                                                                 |  |                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Well completed with standpipe over riser, 3 ft above ground surface                                             |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |      |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |  |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |                                                                                               |  |                                                                                          |  |                                                                      |  |                                                                            |  |                                                                                                                 |  |                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Native backfill 1'-20'                                                                                          |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |      |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |  |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |                                                                                               |  |                                                                                          |  |                                                                      |  |                                                                            |  |                                                                                                                 |  |                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Bentonite, 20'-22'                                                                                              |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |      |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |  |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |                                                                                               |  |                                                                                          |  |                                                                      |  |                                                                            |  |                                                                                                                 |  |                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | #2 Morie Sand, 36'-22'                                                                                          |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |      |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |  |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |                                                                                               |  |                                                                                          |  |                                                                      |  |                                                                            |  |                                                                                                                 |  |                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 2" Schedule 40 PVC Screen with 2' of 0.010" Slotted Screen 24'-34'                                              |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |      |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |  |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |                                                                                               |  |                                                                                          |  |                                                                      |  |                                                                            |  |                                                                                                                 |  |                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| Notes: 1) Technical Drilling Services of Sterling, M/<br>2) Hollow Stem Auger                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                 | Key: <table border="1"> <tr><td></td><td>Cement</td></tr> <tr><td></td><td>Native Backfill Material</td></tr> <tr><td></td><td>Grout</td></tr> <tr><td></td><td>Bentonite</td></tr> <tr><td></td><td>Sand</td></tr> </table> |                |                                                                                                                                                                                                                                             | Cement     |             | Native Backfill Material |           | Grout     |                 | Bentonite      |          | Sand       |             |                                                                                |   |                    |      |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |  |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |                                                                                               |  |                                                                                          |  |                                                                      |  |                                                                            |  |                                                                                                                 |  |                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Cement                                                                                                          |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |      |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |  |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |                                                                                               |  |                                                                                          |  |                                                                      |  |                                                                            |  |                                                                                                                 |  |                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Native Backfill Material                                                                                        |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |      |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |  |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |                                                                                               |  |                                                                                          |  |                                                                      |  |                                                                            |  |                                                                                                                 |  |                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Grout                                                                                                           |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |      |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |  |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |                                                                                               |  |                                                                                          |  |                                                                      |  |                                                                            |  |                                                                                                                 |  |                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Bentonite                                                                                                       |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |      |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |  |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |                                                                                               |  |                                                                                          |  |                                                                      |  |                                                                            |  |                                                                                                                 |  |                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Sand                                                                                                            |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |      |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |  |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |                                                                                               |  |                                                                                          |  |                                                                      |  |                                                                            |  |                                                                                                                 |  |                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |
| Remarks: 1) Stratification lines represent approximate boundaries between soil types and the transition may be gradual. Water level readings have been completed at times and under conditions stated. Fluctuations of groundwater may occur due to factors other than those present at the time measurements were made.<br>2) Sample is designated as either "C" for composite or "GS" for a discrete grab sample.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                 |                                                                                                                                                                                                                              |                |                                                                                                                                                                                                                                             |            |             |                          |           |           |                 |                |          |            |             |                                                                                |   |                    |      |                                                                                                                         |         |                      |                                           |   |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |         |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |      |       |         |    |   |    |  |  |  |  |  |  |    |  |       |       |          |    |   |    |  |  |  |  |  |  |    |  |  |  |  |  |  |    |  |       |       |  |    |   |    |  |  |  |  |  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |                                                                                               |  |                                                                                          |  |                                                                      |  |                                                                            |  |                                                                                                                 |  |                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                           |  |  |                                                                     |  |                        |  |                    |  |                        |  |                                                                    |

|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------|-----------------------------------------|
| <div></div> <div>Sovereign Consulting Inc.<br/>16 Chestnut Street, Ste 520<br/>Foxborough, MA 02035</div> |  | Boring/Well ID: <b>PZ-12-05</b>                                                                                                                                                            |  | Sheet <u>  1  </u> of <u>  1  </u>                                                                   |                                         |
| Client:           U.S.A.C.E.<br>Project:   Shepley's Hill Landfill Barrier Wall<br>Project Number: AC001.02B<br>Location:       Fort Devens, MA                                           |  | Drilling Co.:       TDS <sup>1</sup><br>Drill Rig:           HSA <sup>2</sup> ATV<br>Drill Method:       Hollow Stem Auger<br>Foreman:           Brett<br>SCI Inspector:      Mykel Mendes |  | <div>Casing</div> Type:   PVC<br>Size:   2"                                                          | <div>Sampler</div> NA<br>NA<br>NA<br>NA |
|                                                                                                                                                                                           |  | Start Date:       10/10/2012<br>Completion Date:   10/10/2012                                                                                                                              |  | Casing Elevation:       238.70<br>Surface Elevation:      236.65<br>Wellhead Type:         Standpipe |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  | Stratum                                                                                              | Test Boring/ Monitoring Well            |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  | Change (ft.)                                                                                         | Construction                            |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |
|                                                                                                                                                                                           |  |                                                                                                                                                                                            |  |                                                                                                      |                                         |



|  <b>Sovereign Consulting Inc.</b><br>16 Chestnut Street, Ste 520<br>Foxborough, MA 02035                                                                |           | Boring/Well ID: <b>PZ-12-06</b>                                                                                                                       |                | Sheet <u>  1  </u> of <u>  1  </u>                                                                                                                                                                                                          |            |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                         |                                                                     |                        |                    |                        |                                                                    |            |             |                                                       |  |                                                                                   |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|------------------------|--------------------|------------------------|--------------------------------------------------------------------|------------|-------------|-------------------------------------------------------|--|-----------------------------------------------------------------------------------|--|
| Client: U.S.A.C.E.<br>Project: Shepley's Hill Landfill Barrier Wall<br>Project Number: AC001.02B<br>Location: Fort Devens, MA                                                                                                           |           | Drilling Co.: TDS <sup>1</sup><br>Drill Rig: HSA <sup>2</sup> ATV<br>Drill Method: Hollow Stem Auger<br>Foreman: Brett<br>SCI Inspector: Mykel Mendes |                | <table border="1"> <tr> <th>Casing</th> <th>Sampler</th> </tr> <tr> <td>Type: PVC</td> <td>NA</td> </tr> <tr> <td>Size: 2"</td> <td>NA</td> </tr> <tr> <td>Hammer</td> <td>NA</td> </tr> <tr> <td>Pneumatic</td> <td>NA</td> </tr> </table> |            | Casing                                                                                                                       | Sampler                                                                                                                                                                                                                                                                                                                                 | Type: PVC                                                           | NA                     | Size: 2"           | NA                     | Hammer                                                             | NA         | Pneumatic   | NA                                                    |  |                                                                                   |  |
| Casing                                                                                                                                                                                                                                  | Sampler   |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                         |                                                                     |                        |                    |                        |                                                                    |            |             |                                                       |  |                                                                                   |  |
| Type: PVC                                                                                                                                                                                                                               | NA        |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                         |                                                                     |                        |                    |                        |                                                                    |            |             |                                                       |  |                                                                                   |  |
| Size: 2"                                                                                                                                                                                                                                | NA        |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                         |                                                                     |                        |                    |                        |                                                                    |            |             |                                                       |  |                                                                                   |  |
| Hammer                                                                                                                                                                                                                                  | NA        |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                         |                                                                     |                        |                    |                        |                                                                    |            |             |                                                       |  |                                                                                   |  |
| Pneumatic                                                                                                                                                                                                                               | NA        |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                         |                                                                     |                        |                    |                        |                                                                    |            |             |                                                       |  |                                                                                   |  |
| <table border="1"> <tr> <th colspan="6">Sample Information</th> </tr> <tr> <th>Depth</th> <th>Sample ID</th> <th>Pen./Rec. (in.)</th> <th>Interval (Ft.)</th> <th>Blows/6"</th> <th>PID (ppmv)</th> <th>Sample Type</th> </tr> </table> |           | Sample Information                                                                                                                                    |                |                                                                                                                                                                                                                                             |            |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                         | Depth                                                               | Sample ID              | Pen./Rec. (in.)    | Interval (Ft.)         | Blows/6"                                                           | PID (ppmv) | Sample Type | Start Date: 10/10/2012<br>Completion Date: 10/10/2012 |  | Casing Elevation: 242.22<br>Surface Elevation: 238.77<br>Wellhead Type: Standpipe |  |
| Sample Information                                                                                                                                                                                                                      |           |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                         |                                                                     |                        |                    |                        |                                                                    |            |             |                                                       |  |                                                                                   |  |
| Depth                                                                                                                                                                                                                                   | Sample ID | Pen./Rec. (in.)                                                                                                                                       | Interval (Ft.) | Blows/6"                                                                                                                                                                                                                                    | PID (ppmv) | Sample Type                                                                                                                  |                                                                                                                                                                                                                                                                                                                                         |                                                                     |                        |                    |                        |                                                                    |            |             |                                                       |  |                                                                                   |  |
|                                                                                                                                                                                                                                         |           | <table border="1"> <tr> <th>Stratum Change (ft.)</th> <th>Notes</th> <th>Test Boring/ Monitoring Well Construction</th> </tr> </table>                |                | Stratum Change (ft.)                                                                                                                                                                                                                        | Notes      | Test Boring/ Monitoring Well Construction                                                                                    |                                                                                                                                                                                                                                                                                                                                         |                                                                     |                        |                    |                        |                                                                    |            |             |                                                       |  |                                                                                   |  |
| Stratum Change (ft.)                                                                                                                                                                                                                    | Notes     | Test Boring/ Monitoring Well Construction                                                                                                             |                |                                                                                                                                                                                                                                             |            |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                         |                                                                     |                        |                    |                        |                                                                    |            |             |                                                       |  |                                                                                   |  |
|                                                                                                                                                                                                                                         |           | <table border="1"> <tr> <th colspan="6">Sample Description</th> </tr> </table>                                                                        |                | Sample Description                                                                                                                                                                                                                          |            |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                         |                                                                     |                        |                    |                        |                                                                    |            |             |                                                       |  |                                                                                   |  |
| Sample Description                                                                                                                                                                                                                      |           |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                         |                                                                     |                        |                    |                        |                                                                    |            |             |                                                       |  |                                                                                   |  |
| 2                                                                                                                                                                                                                                       |           |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                                              | <table border="1"> <tr> <td>Well completed with standpipe over riser, 3 ft above ground surface</td> </tr> <tr> <td>Native backfill 1'-21'</td> </tr> <tr> <td>Bentonite, 21'-23'</td> </tr> <tr> <td>#2 Morie Sand, 35'-23'</td> </tr> <tr> <td>2" Schedule 40 PVC Screen with 2' of 0.010" Slotted Screen 25'-35'</td> </tr> </table> | Well completed with standpipe over riser, 3 ft above ground surface | Native backfill 1'-21' | Bentonite, 21'-23' | #2 Morie Sand, 35'-23' | 2" Schedule 40 PVC Screen with 2' of 0.010" Slotted Screen 25'-35' |            |             |                                                       |  |                                                                                   |  |
| Well completed with standpipe over riser, 3 ft above ground surface                                                                                                                                                                     |           |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                         |                                                                     |                        |                    |                        |                                                                    |            |             |                                                       |  |                                                                                   |  |
| Native backfill 1'-21'                                                                                                                                                                                                                  |           |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                         |                                                                     |                        |                    |                        |                                                                    |            |             |                                                       |  |                                                                                   |  |
| Bentonite, 21'-23'                                                                                                                                                                                                                      |           |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                         |                                                                     |                        |                    |                        |                                                                    |            |             |                                                       |  |                                                                                   |  |
| #2 Morie Sand, 35'-23'                                                                                                                                                                                                                  |           |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                         |                                                                     |                        |                    |                        |                                                                    |            |             |                                                       |  |                                                                                   |  |
| 2" Schedule 40 PVC Screen with 2' of 0.010" Slotted Screen 25'-35'                                                                                                                                                                      |           |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                         |                                                                     |                        |                    |                        |                                                                    |            |             |                                                       |  |                                                                                   |  |
| 4                                                                                                                                                                                                                                       |           |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                         |                                                                     |                        |                    |                        |                                                                    |            |             |                                                       |  |                                                                                   |  |
| 6                                                                                                                                                                                                                                       |           | 8/24                                                                                                                                                  | 5-7            | 2-3-4-4                                                                                                                                                                                                                                     | NA         | 2.5Y (3/2) very dark grayish brown, dry, well graded loose med. To coarse sand, some silt, trace clay, trace rounded gravel. |                                                                                                                                                                                                                                                                                                                                         |                                                                     |                        |                    |                        |                                                                    |            |             |                                                       |  |                                                                                   |  |
| 8                                                                                                                                                                                                                                       |           |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                         |                                                                     |                        |                    |                        |                                                                    |            |             |                                                       |  |                                                                                   |  |
| 10                                                                                                                                                                                                                                      |           |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                         |                                                                     |                        |                    |                        |                                                                    |            |             |                                                       |  |                                                                                   |  |
| 12                                                                                                                                                                                                                                      |           | 13/24                                                                                                                                                 | 10-12          | 3-5-5-3                                                                                                                                                                                                                                     | NA         | 2.5Y (4/4) olive brown, dry, fine to medium sand, little coarse sand, little silt, trace rounded gravel.                     |                                                                                                                                                                                                                                                                                                                                         |                                                                     |                        |                    |                        |                                                                    |            |             |                                                       |  |                                                                                   |  |
| 14                                                                                                                                                                                                                                      |           |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                         |                                                                     |                        |                    |                        |                                                                    |            |             |                                                       |  |                                                                                   |  |
| 16                                                                                                                                                                                                                                      |           | 13/24                                                                                                                                                 | 15-17          | 2-1-2-3                                                                                                                                                                                                                                     | NA         | 2.5Y, (5/4) light olive brown, dry to damp, fine to medium sand, little silt.                                                |                                                                                                                                                                                                                                                                                                                                         |                                                                     |                        |                    |                        |                                                                    |            |             |                                                       |  |                                                                                   |  |
| 18                                                                                                                                                                                                                                      |           |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                         |                                                                     |                        |                    |                        |                                                                    |            |             |                                                       |  |                                                                                   |  |
| 20                                                                                                                                                                                                                                      |           |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                         |                                                                     |                        |                    |                        |                                                                    |            |             |                                                       |  |                                                                                   |  |
| 22                                                                                                                                                                                                                                      |           | 24/24                                                                                                                                                 | 20-22          | 2-2-2-3                                                                                                                                                                                                                                     | NA         | 2.5Y (5/4) light olive brown, wet, fine to medium sand.                                                                      |                                                                                                                                                                                                                                                                                                                                         |                                                                     |                        |                    |                        |                                                                    |            |             |                                                       |  |                                                                                   |  |
| 24                                                                                                                                                                                                                                      |           |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                         |                                                                     |                        |                    |                        |                                                                    |            |             |                                                       |  |                                                                                   |  |
| 26                                                                                                                                                                                                                                      |           | 24/24                                                                                                                                                 | 25-27          | 2-1-1-2                                                                                                                                                                                                                                     | NA         | Most 10YR (4/3) brown, trace 10YR (4/6) dark yellowish brown, wet, sat. fine to medium sand.                                 |                                                                                                                                                                                                                                                                                                                                         |                                                                     |                        |                    |                        |                                                                    |            |             |                                                       |  |                                                                                   |  |
| 28                                                                                                                                                                                                                                      |           |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                         |                                                                     |                        |                    |                        |                                                                    |            |             |                                                       |  |                                                                                   |  |
| 30                                                                                                                                                                                                                                      |           |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                         |                                                                     |                        |                    |                        |                                                                    |            |             |                                                       |  |                                                                                   |  |
| 32                                                                                                                                                                                                                                      |           | 24/24                                                                                                                                                 | 30-32          | 4-5-8-7                                                                                                                                                                                                                                     | NA         | 2.5Y (4/3) olive brown, wet, sat. fine to medium sand.                                                                       |                                                                                                                                                                                                                                                                                                                                         |                                                                     |                        |                    |                        |                                                                    |            |             |                                                       |  |                                                                                   |  |
| 34                                                                                                                                                                                                                                      |           |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                         |                                                                     |                        |                    |                        |                                                                    |            |             |                                                       |  |                                                                                   |  |
| 36                                                                                                                                                                                                                                      |           |                                                                                                                                                       |                |                                                                                                                                                                                                                                             |            |                                                                                                                              |                                                                                                                                                                                                                                                                                                                                         |                                                                     |                        |                    |                        |                                                                    |            |             |                                                       |  |                                                                                   |  |

Notes:

- 1) Technical Drilling Services of Sterling, M/
- 2) Hollow Stem Auger
- 3) Set well at 35' bgs since well casing began to rise as auger casing was pulled out of the ho
- 4) Did not collect a 35-37' split spoon sample to avoid hole collapse, anticipated to set well at 36' bgs

Remarks:

- 1) Stratification lines represent approximate boundaries between soil types and the transition may be gradual. Water level readings have been completed at times and under conditions stated. Fluctuations of groundwater may occur due to factors other than those present at the time measurements were made.
- 2) Sample is designated as either "C" for composite or "GS" for a discrete grab sample.

Key:

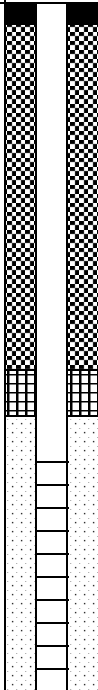
|  |                          |
|--|--------------------------|
|  | Cement                   |
|  | Native Backfill Material |
|  | Grout                    |
|  | Bentonite                |
|  | Sand                     |








Sheet 1 of 1

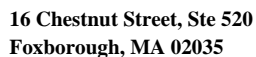
| Casing    | Sampler |
|-----------|---------|
| Type: PVC | NA      |
| Size: 2"  | NA      |
| Hammer    | NA      |
| Pneumatic | NA      |

|                    |           |
|--------------------|-----------|
| Casing Elevation:  | 244.63    |
| Surface Elevation: | 240.83    |
| Wellhead Type:     | Standpipe |

| Depth | Sample Information |                 |                 |             |            |   | Sample Type                                                                                                                        | Sample Description | Stratum Change (ft.) | Notes | Test Boring/ Monitoring Well Construction                                            |                                                                     |
|-------|--------------------|-----------------|-----------------|-------------|------------|---|------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------------|-------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------|
|       | Sample ID          | Pen./Rec. (in.) | Interval (F.L.) | Blows/6"    | PID (ppmv) |   |                                                                                                                                    |                    |                      |       |                                                                                      |                                                                     |
|       |                    |                 |                 |             |            |   |                                                                                                                                    |                    |                      |       |                                                                                      |                                                                     |
| 2     |                    |                 |                 |             |            |   | most 2.5Y (7/2) light gray, little 2.5Y (4/2) dark grayish brown, dry well sorted fine to medium sand, trace silt.                 |                    |                      |       |  | Well completed with standpipe over riser, 3 ft above ground surface |
| 4     |                    |                 |                 |             |            |   |                                                                                                                                    |                    |                      |       |                                                                                      |                                                                     |
| 6     |                    | 14/24           | 5-7             | 12-10-12-15 | NA         | C |                                                                                                                                    |                    |                      |       |                                                                                      |                                                                     |
| 8     |                    |                 |                 |             |            |   | most 2.5Y (7/2) light gray, little 2.5Y (4/2) dark grayish brown, dry well sorted fine to medium sand, trace silt.                 |                    |                      |       |                                                                                      | Native backfill 1'-16'                                              |
| 10    |                    |                 |                 |             |            |   |                                                                                                                                    |                    |                      |       |                                                                                      |                                                                     |
| 12    |                    | 16/24           | 10-12           | 3-2-3-3     | NA         | C |                                                                                                                                    |                    |                      |       |                                                                                      |                                                                     |
| 14    |                    |                 |                 |             |            |   | Most 2.5Y (4/2) dark grayish brown, most 2.5Y (7/2) light gray, dry well sorted fine to medium sand, trace silt.                   |                    |                      |       |                                                                                      | Bentonite 16'-18'                                                   |
| 16    |                    | 16/24           | 15-17           | 3-2-4-5     | NA         | C |                                                                                                                                    |                    |                      |       |                                                                                      |                                                                     |
| 18    |                    |                 |                 |             |            |   |                                                                                                                                    |                    |                      |       |                                                                                      |                                                                     |
| 20    |                    |                 |                 |             |            |   | 2.5Y (6/4), light yellowish brown, dry to damp, well sorted fine to medium sands, trace silt.                                      |                    |                      |       |                                                                                      | #2 Morie Sand, 30'-18'                                              |
| 22    |                    | 20/24           | 20-22           | 4-4-4-5     | NA         | C |                                                                                                                                    |                    |                      |       |                                                                                      |                                                                     |
| 24    |                    |                 |                 |             |            |   |                                                                                                                                    |                    |                      |       |                                                                                      |                                                                     |
| 26    |                    | 20/24           | 25-27           | 3-3-3-5     | NA         | C | 10YR, (4/6) dark yellowish brown, wet sat., well sorted fine to medium sand, some med. to coarse sand, trace fine rounded gravels. |                    |                      |       |                                                                                      | 2" Schedule 40 PVC Screen with 2' of 0.010" Slotted Screen 20'-30'  |
| 28    |                    |                 |                 |             |            |   |                                                                                                                                    |                    |                      |       |                                                                                      |                                                                     |
| 30    |                    |                 |                 |             |            |   |                                                                                                                                    |                    |                      |       |                                                                                      |                                                                     |
| 32    |                    | 14/20           | 30-32           | 9-11-14-21  | NA         | C | 10YR (4/6) dark yellowish brown, wet, sat., well graded med. to coarse sands, trace fine sands, trace fine gravel.                 |                    | 3                    |       |                                                                                      |                                                                     |

|      |                                                                                       |                          |
|------|---------------------------------------------------------------------------------------|--------------------------|
| Key: |  | Cement                   |
|      |  | Native Backfill Material |
|      |  | Grout                    |
|      |  | Bentonite                |
|      |  | Sand                     |




Remarks: 1) Stratification lines represent approximate boundaries between soil types and the transition may be gradual. Water level readings have been completed at times and under conditions stated. Fluctuations of groundwater may occur due to factors other than those present at the time measurements were made.  
2) Sample is designated as either "C" for composite or "GS" for a discrete grab sample.



Sheet 1 of 1


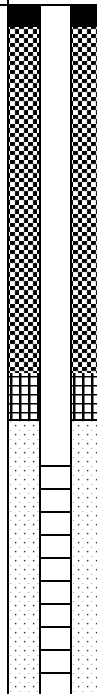





| Casing    | Sampler |
|-----------|---------|
| Type: PVC | NA      |
| Size: 2"  | NA      |
| Hammer    | NA      |
| Pneumatic | NA      |


|                    |           |
|--------------------|-----------|
| Casing Elevation:  | 244.88    |
| Surface Elevation: | 241.76    |
| Wellhead Type:     | Standpipe |

|        |    |                                             |      |                                                                                       |                          |
|--------|----|---------------------------------------------|------|---------------------------------------------------------------------------------------|--------------------------|
| Notes: | 1) | Technical Drilling Services of Sterling, MD | Key: |  | Cement                   |
|        | 2) | Hollow Stem Auger                           |      |  | Native Backfill Material |
|        |    |                                             |      |  | Grout                    |
|        |    |                                             |      |  | Bentonite                |
|        |    |                                             |      |  | Sand                     |

Remarks: 1) Stratification lines represent approximate boundaries between soil types and the transition may be gradual. Water level readings have been completed at times and under conditions stated. Fluctuations of groundwater may occur due to factors other than those present at the time measurements were made.

2) Sample is designated as either "C" for composite or "GS" for a discrete grab sample.

|                                                                                                                                                                                                                                                                                                                                                                                                                   |                    |                                                                                                                                                                                                                                                       |                |                                                                                                                                                                                                              |            |                                                                                                              |                                                                                                                                        |                                                                                      |                                                                     |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |    |           |    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----|-----------|----|
|  <b>Sovereign Consulting Inc.</b><br>16 Chestnut Street, Ste 520<br>Foxborough, MA 02035                                                                                                                                                                                                                                          |                    | Boring/Well ID: <b>PZ-12-09</b>                                                                                                                                                                                                                       |                | Sheet <u>  1  </u> of <u>  1  </u>                                                                                                                                                                           |            |                                                                                                              |                                                                                                                                        |                                                                                      |                                                                     |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |    |           |    |
| Client:           U.S.A.C.E.<br>Project:   Shepley's Hill Landfill Barrier Wall<br>Project Number: AC001.02B<br>Location:       Fort Devens, MA                                                                                                                                                                                                                                                                   |                    | Drilling Co.:       TDS <sup>1</sup><br>Drill Rig:         HSA <sup>2</sup> ATV<br>Drill Method:      Hollow Stem Auger<br>Foreman:          Brett<br>SCI Inspector:     Mykel Mendes<br>Start Date:        10/9/2012<br>Completion Date:   10/9/2012 |                | <table><tr><td>Casing</td><td>Sampler</td></tr><tr><td>Type: PVC</td><td>NA</td></tr><tr><td>Size:  2"</td><td>NA</td></tr><tr><td>Hammer</td><td>NA</td></tr><tr><td>Pneumatic</td><td>NA</td></tr></table> |            | Casing                                                                                                       | Sampler                                                                                                                                | Type: PVC                                                                            | NA                                                                  | Size:  2" | NA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Hammer | NA | Pneumatic | NA |
| Casing                                                                                                                                                                                                                                                                                                                                                                                                            | Sampler            |                                                                                                                                                                                                                                                       |                |                                                                                                                                                                                                              |            |                                                                                                              |                                                                                                                                        |                                                                                      |                                                                     |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |    |           |    |
| Type: PVC                                                                                                                                                                                                                                                                                                                                                                                                         | NA                 |                                                                                                                                                                                                                                                       |                |                                                                                                                                                                                                              |            |                                                                                                              |                                                                                                                                        |                                                                                      |                                                                     |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |    |           |    |
| Size:  2"                                                                                                                                                                                                                                                                                                                                                                                                         | NA                 |                                                                                                                                                                                                                                                       |                |                                                                                                                                                                                                              |            |                                                                                                              |                                                                                                                                        |                                                                                      |                                                                     |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |    |           |    |
| Hammer                                                                                                                                                                                                                                                                                                                                                                                                            | NA                 |                                                                                                                                                                                                                                                       |                |                                                                                                                                                                                                              |            |                                                                                                              |                                                                                                                                        |                                                                                      |                                                                     |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |    |           |    |
| Pneumatic                                                                                                                                                                                                                                                                                                                                                                                                         | NA                 |                                                                                                                                                                                                                                                       |                |                                                                                                                                                                                                              |            |                                                                                                              |                                                                                                                                        |                                                                                      |                                                                     |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |    |           |    |
| Depth                                                                                                                                                                                                                                                                                                                                                                                                             | Sample Information |                                                                                                                                                                                                                                                       |                |                                                                                                                                                                                                              |            | Casing Elevation:           241.93<br>Surface Elevation:        238.42<br>Wellhead Type:           Standpipe |                                                                                                                                        |                                                                                      |                                                                     |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |    |           |    |
|                                                                                                                                                                                                                                                                                                                                                                                                                   | Sample ID          | Pen./Rec. (in.)                                                                                                                                                                                                                                       | Interval (ft.) | Blows/6"                                                                                                                                                                                                     | PID (ppmv) |                                                                                                              |                                                                                                                                        | Sample Type                                                                          |                                                                     |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |    |           |    |
|                                                                                                                                                                                                                                                                                                                                                                                                                   |                    |                                                                                                                                                                                                                                                       |                |                                                                                                                                                                                                              |            |                                                                                                              | Stratum                                                                                                                                | Notes                                                                                | Test Boring/ Monitoring Well Construction                           |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |    |           |    |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                 |                    |                                                                                                                                                                                                                                                       |                |                                                                                                                                                                                                              |            |                                                                                                              |                                                                                                                                        |  | Well completed with standpipe over riser, 3 ft above ground surface |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |    |           |    |
| 4                                                                                                                                                                                                                                                                                                                                                                                                                 |                    |                                                                                                                                                                                                                                                       |                |                                                                                                                                                                                                              |            |                                                                                                              |                                                                                                                                        |                                                                                      |                                                                     |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |    |           |    |
| 6                                                                                                                                                                                                                                                                                                                                                                                                                 |                    | 12/24                                                                                                                                                                                                                                                 | 5-7            | 4-2-3-4                                                                                                                                                                                                      | NA         | C                                                                                                            | 2.5Y, (5/3) light olive brown, dry well sorted loose, fine to medium sand, trace coarse sand.                                          |                                                                                      |                                                                     |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |    |           |    |
| 8                                                                                                                                                                                                                                                                                                                                                                                                                 |                    |                                                                                                                                                                                                                                                       |                |                                                                                                                                                                                                              |            |                                                                                                              |                                                                                                                                        |                                                                                      |                                                                     |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |    |           |    |
| 10                                                                                                                                                                                                                                                                                                                                                                                                                |                    |                                                                                                                                                                                                                                                       |                |                                                                                                                                                                                                              |            |                                                                                                              |                                                                                                                                        |                                                                                      |                                                                     |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |    |           |    |
| 12                                                                                                                                                                                                                                                                                                                                                                                                                |                    | 12/24                                                                                                                                                                                                                                                 | 10-12          | 2-3-3-4                                                                                                                                                                                                      | NA         | C                                                                                                            | 2.5Y, (5/3) light olive brown, dry well sorted loose, fine to medium sand, trace coarse sand.                                          |                                                                                      |                                                                     |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |    |           |    |
| 14                                                                                                                                                                                                                                                                                                                                                                                                                |                    |                                                                                                                                                                                                                                                       |                |                                                                                                                                                                                                              |            |                                                                                                              |                                                                                                                                        |                                                                                      |                                                                     |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |    |           |    |
| 16                                                                                                                                                                                                                                                                                                                                                                                                                |                    | 13/24                                                                                                                                                                                                                                                 | 15-17          | 5-5-5-6                                                                                                                                                                                                      | NA         | C                                                                                                            | 2.5Y, (5/4) light olive brown, dry well sorted loose, fine to medium sand, little coarse sand, trace fine gravels.                     |                                                                                      |                                                                     |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |    |           |    |
| 18                                                                                                                                                                                                                                                                                                                                                                                                                |                    |                                                                                                                                                                                                                                                       |                |                                                                                                                                                                                                              |            |                                                                                                              |                                                                                                                                        |                                                                                      |                                                                     |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |    |           |    |
| 20                                                                                                                                                                                                                                                                                                                                                                                                                |                    |                                                                                                                                                                                                                                                       |                |                                                                                                                                                                                                              |            |                                                                                                              |                                                                                                                                        |                                                                                      |                                                                     |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |    |           |    |
| 22                                                                                                                                                                                                                                                                                                                                                                                                                |                    | 24/24                                                                                                                                                                                                                                                 | 20-22          | 3-3-4-4                                                                                                                                                                                                      | NA         | C                                                                                                            | 10YR (4/3) brown, wet, wet sorted fine to medium sands, trace coarse sands. 2in lense of (10YR, (4/6) dark yellowish brown) fine sand. |                                                                                      |                                                                     |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |    |           |    |
| 24                                                                                                                                                                                                                                                                                                                                                                                                                |                    |                                                                                                                                                                                                                                                       |                |                                                                                                                                                                                                              |            |                                                                                                              |                                                                                                                                        |                                                                                      |                                                                     |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |    |           |    |
| 26                                                                                                                                                                                                                                                                                                                                                                                                                |                    | 14/24                                                                                                                                                                                                                                                 | 25-27          | 7-8-5-5                                                                                                                                                                                                      | NA         | C                                                                                                            | 2.5Y, (5/4) light olive brown, wet, saturated, loose fine sands and fine silts.                                                        |                                                                                      |                                                                     |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |    |           |    |
| 28                                                                                                                                                                                                                                                                                                                                                                                                                |                    |                                                                                                                                                                                                                                                       |                |                                                                                                                                                                                                              |            |                                                                                                              |                                                                                                                                        |                                                                                      |                                                                     |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |    |           |    |
| 30                                                                                                                                                                                                                                                                                                                                                                                                                |                    | 12/24                                                                                                                                                                                                                                                 | 29-30          | 2-2                                                                                                                                                                                                          | NA         | C                                                                                                            | 2.5Y, (5/4) light olive brown, wet, saturated, fine sands and fine silts. Hit bedrock at 30', some bedrock fragments.                  |                                                                                      |                                                                     |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |    |           |    |
| Notes:                                                                                                                                                                                                                                                                                                                                                                                                            |                    | 1)       Technical Drilling Services of Sterling, M/<br>2)       Hollow Stem Auger                                                                                                                                                                    |                |                                                                                                                                                                                                              |            |                                                                                                              |                                                                                                                                        |                                                                                      |                                                                     | Key:      |  Cement<br> Native Backfill Material<br> Grout<br> Bentonite<br> Sand |        |    |           |    |
| Remarks: 1) Stratification lines represent approximate boundaries between soil types and the transition may be gradual. Water level readings have been completed at times and under condions stated. Fluctuations of groundwater may occur due to factors other than those present at the time measurements were made.<br>2) Sample is designated as either "C" for composite or "GS" for a discrete grab sample. |                    |                                                                                                                                                                                                                                                       |                |                                                                                                                                                                                                              |            |                                                                                                              |                                                                                                                                        |                                                                                      |                                                                     |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |    |           |    |

|                                                                                                                                                                          |                    |                                                                                                                                                                                                              |                |                                                                                                                                                                                |            |             |                     |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-------------|---------------------|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <b>Sovereign Consulting Inc.</b><br>16 Chestnut Street, Ste 520<br>Foxborough, MA 02035 |                    | Boring/Well ID: <b>PZ-12-10</b>                                                                                                                                                                              |                | Sheet <u>  1  </u> of <u>  1  </u>                                                                                                                                             |            |             |                     |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Client: U.S.A.C.E.<br>Project: Shepley's Hill Landfill Barrier Wall<br>Project Number: AC001.02B<br>Location: Fort Devens, MA                                            |                    | Drilling Co.: TDS <sup>1</sup><br>Drill Rig: HSA <sup>2</sup> ATV<br>Drill Method: Hollow Stem Auger<br>Foreman: Brett<br>SCI Inspector: Mykel Mendes<br>Start Date: 10/9/2012<br>Completion Date: 10/9/2012 |                | Casing<br>Type: PVC<br>Size: 2"<br>Hammer<br>Pneumatic<br>Sampler<br>NA<br>NA<br>NA<br>NA<br>Casing Elevation: 242.28<br>Surface Elevation: 238.92<br>Wellhead Type: Standpipe |            |             |                     |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Depth                                                                                                                                                                    | Sample Information |                                                                                                                                                                                                              |                |                                                                                                                                                                                |            | Sample Type | Stratum Change (ft) | Notes | Test Boring/ Monitoring Well Construction                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|                                                                                                                                                                          | Sample ID          | Pen./Rec. (in.)                                                                                                                                                                                              | Interval (ft.) | Blows/6"                                                                                                                                                                       | PID (ppmv) |             |                     |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 2                                                                                                                                                                        |                    |                                                                                                                                                                                                              |                |                                                                                                                                                                                |            |             |                     |       | Well completed with standpipe over riser, 3 ft above ground surface<br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br>< |

Casella Waste Services Southbridge LF  
A Division of Casella Waste Systems Inc.  
165 Barefoot Rd Southbridge MA 01550  
V: (508)765-9976 F: (508)765-2752

TICKET: 173392  
DATE: 11/20/2012  
TIME: 10:48 - 11:15

CUSTOMER: LF00256 / EQ NORTHEAST INC  
HAULCUST: WO: 0 APPROVAL #:

P.O.:  
GROSS: 87320 LBS  
TARE: 36980 LBS  
NET: 50340 LBS

ORIGIN: NA / NON APPLICABLE

TRUCK: G 03-4

TRAILER:

GENERATOR: NA / NON APPLICABLE PROFILE #: NA

HAULER: GOULET / GOULET

ROUTE: NA / NON APPLICABLE

COMMENT:

CELL/TANK: 7

MATERIAL

QUANTITY

UNIT

MS / IB MSW

25.1700

ST

To the best of my knowledge, the material delivered to this site is not hazardous, asbestos containing, or unacceptable waste. I certify, under the penalty of perjury that the information provided is true and correct to the best of my knowledge and belief.

I Certify under penalty of perjury that I am familiar with wastes

authorized at this facility and that to the best of my knowledge all

waste contained in this load is authorized for disposal at this facility.

Scalemaster:  
IN: JMR

B: PCSCALE1-STH OUT: JMR

Driver:  B: PCSCALE1-STH



Massachusetts Department of Environmental Protection  
Bureau of Waste Prevention

## Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Tracking Number

### A. Location Information

**Important:**  
When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



1. Provide the following information on the location where the waste was generated:

Release name (optional) Shepley's Hill Landfill - Remier Wall Construction

Street Cook Street

City/Town Devens

Location aid

State MA

Zip code 01434

2. Date/Period of generation:

From 8-20-12

To 9-14-12

3. U.S. EPA ID number:

MA7210025154

4. 21E release:

☐ Yes

☒ No

5. List additional tracking documents associated with this document:

### B. Generator Information

1. Provide the following generator information:

Name of organization Department of the Army - Former Ft. Devens Installation

Contact name Robert Simone

Title BRAC Environmental Coordinator

Street address 30 Quebec Street

City/Town Devens

State MA

Zip code 01434

Telephone number(including extension)

(978) 796-2205

### C. Owner and/or Operator Information

1. If the owner and/or operator is different from the generator as indicated in Section B, provide the following information:

Check applicable: ☐ owner ☐ operator

Name of organization

Contact name

Title

Street address

City/Town

State

Zip code

Telephone number

Ext.

**Important:**  
This form is not to be used for the shipment of remediation wastes subject to management under section 310 CMR 40.0035 of the Massachusetts Contingency Plan nor is it to be used in lieu of a hazardous waste manifest for hazardous waste or recyclable materials subject to the Massachusetts Hazardous Waste Regulations 310 CMR 30.000.





Massachusetts Department of Environmental Protection  
Bureau of Waste Prevention

## Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Tracking Number \_\_\_\_\_

### D. Transporter/Common Carrier Information

1. Provide the following information:

Goulet Trucking Inc.  
Transporter/Common carrier name

N/A  
Hazardous waste license number (if applicable)

MA  
Licensing state (if applicable)

Paul Jordan  
Contact person

T+D Coordinator  
Title

P.O. Box 259  
Street

South Deerfield  
City/Town

MA  
State

01373  
Zip code

(413) 665-1323  
Telephone number

—  
Ext.

### E. Receiving Facility Information

1. Provide the following information on the receiving facility:

Casella Waste Services / Southbridge Recycling + Disposal Park Inc.  
Operator/Facility name

Scott Simpson  
Contact person

165 Barefoot Road  
Street

Southbridge  
City/Town

MA  
State

01550  
Zip code

(603) 235-3597  
Telephone number

—  
Ext.

2. Type of facility:

- ☐ asphalt batch/cold mix  
☐ asphalt batch/hot mix  
☒ landfill/disposal  
☐ landfill/ daily cover  
☐ thermal processing  
☒ landfill/structural fill  
☐ other(specify): \_\_\_\_\_

3. Permit number: X239694





Massachusetts Department of Environmental Protection  
Bureau of Waste Prevention

## Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Tracking Number \_\_\_\_\_

### F. Description of Material

Check all that apply:

1. a. ☐ soil ☐ dredge material ☐ fill

b. Description: \_\_\_\_\_

c. Classification: ☐ MIT ☐ USDA ☐ USAEC ☐ ASEE

2. ☒ Other(describe): Municipal Solid Waste

3. Type of contamination:

- a. ☐ gasoline ☐ diesel fuel ☐ #2 oil ☐ #4 oil  
☐ #6 oil ☐ waste oil ☐ kerosene ☐ jet fuel

b. ☒ Debris:

☒ demolition ☐ vegetative ☐ inorganic

c. ☐ Other(describe): \_\_\_\_\_

4. Constituents of concern (check all that apply):

- |                                        |                                                 |
|----------------------------------------|-------------------------------------------------|
| <input checked="" type="checkbox"/> As | <input type="checkbox"/> HVOCs                  |
| <input type="checkbox"/> Cd            | <input type="checkbox"/> PATH                   |
| <input checked="" type="checkbox"/> Cr | <input type="checkbox"/> VOCs                   |
| <input checked="" type="checkbox"/> Pb | <input type="checkbox"/> PAHs                   |
| <input type="checkbox"/> Hg            | <input type="checkbox"/> BNAs                   |
| <input type="checkbox"/> Na            | <input type="checkbox"/> TPH                    |
| <input type="checkbox"/> PCBs          | <input type="checkbox"/> Other(describe): _____ |

5. Analyses performed (check all that apply):

- |                                          |                                                 |
|------------------------------------------|-------------------------------------------------|
| <input checked="" type="checkbox"/> As   | <input type="checkbox"/> PATH                   |
| <input checked="" type="checkbox"/> Cd   | <input checked="" type="checkbox"/> VOCs        |
| <input checked="" type="checkbox"/> Cr   | <input checked="" type="checkbox"/> PAHs        |
| <input checked="" type="checkbox"/> Pb   | <input type="checkbox"/> BNAs                   |
| <input checked="" type="checkbox"/> Hg   | <input checked="" type="checkbox"/> TPH         |
| <input type="checkbox"/> Na              | <input type="checkbox"/> TCLP (inorganic)       |
| <input checked="" type="checkbox"/> PCBs | <input type="checkbox"/> TCLP (organic)         |
| <input type="checkbox"/> HVOCs           | <input type="checkbox"/> Other(describe): _____ |

6. Screening performed:

N/A  
Type  
N/A  
Instrument used  
N/A  
Constituents



Massachusetts Department of Environmental Protection  
Bureau of Waste Prevention

## Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Tracking Number \_\_\_\_\_

### F. Description of Material (cont.)

7. Estimated volume of materials:

25 Cubic yards      \_\_\_\_\_ Tons      \_\_\_\_\_ Other(specify units)

8. Contaminant source (check one):

- ☐ transportation accident  
☐ lost  
☒ other(describe): Former Landfill

9. Indicate which waste characterization support documentation is attached:

- ☒ site history information  
☐ sampling and analytical methods/procedure  
☒ laboratory data  
☐ field screening data

If supporting documentation is not appended, provide an attachment stating the date and in connection with what document such information was previously submitted to the facility.

### G. Qualified Environmental Professional Opinion

"I have personally examined and am familiar with the information contained on and submitted with this form. Based on this information, it is my opinion that the testing and assessment actions undertaken were adequate to characterize the waste, and that the facility or location can accept wastes with the characteristics described in this submittal. I am aware that significant penalties including, but not limited to, possible fines and imprisonment may result if I willfully submit information which I know to be false, inaccurate, or materially incomplete."

Sovereign Consulting Inc.  
Name of organization

\_\_\_\_\_  
Name of professional

Program Manager  
Title

508.339.3200  
Telephone number

\_\_\_\_\_  
Ext.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
License number

\_\_\_\_\_  
Seal:





Massachusetts Department of Environmental Protection  
Bureau of Waste Prevention

## Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge  
materials not subject to management under section 310 CMR 40.0035  
nor manifesting under 310 CMR 30.000

Tracking Number \_\_\_\_\_

### H. Certification of Generator

"I certify under penalties of law that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this certification, and that, based on my inquiry of those individuals immediately responsible for obtaining the information contained herein is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate, or incomplete information."

*[Signature]* on behalf of the US Army  
Signature  
11/20/12  
Date  
Jonathan Chaffee of Sweezy Consulting  
Name(print)  
on behalf of the US Army

### I. Acknowledgment of Receipt by Receiving Facility

Receiving facility *Southbridge Landfill*  
Representative (print) *Joseph Robidoux*  
Title *Scale operator*  
Signature *Joe M. Robidoux* Date *11/20/12*



Massachusetts Department of Environmental Protection  
Bureau of Waste Prevention

## Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge  
materials not subject to management under section 310 CMR 40.0035  
nor manifesting under 310 CMR 30.000

Tracking Number \_\_\_\_\_

### J. Load Information

**Note:**  
Make additional  
copies of this page  
as necessary.

Load#: \_\_\_\_\_

Signature of transporter \_\_\_\_\_

Date received 11/20/12

Time received 9:00 AM

Truck/Tractor registration 03-4 / T-54

Load size (cubic yards/tons) \_\_\_\_\_

Receiving facility Southbridge Landfill

Date of shipment 11/20/12

Time of shipment \_\_\_\_\_

Trailer registration T-54

Load#: \_\_\_\_\_

Signature of transporter \_\_\_\_\_

Date received \_\_\_\_\_

Time received \_\_\_\_\_

Truck/Tractor registration \_\_\_\_\_

Load size (cubic yards/tons) \_\_\_\_\_

Receiving facility \_\_\_\_\_

Date of shipment \_\_\_\_\_

Time of shipment \_\_\_\_\_

Trailer registration \_\_\_\_\_

Load#: \_\_\_\_\_

Signature of transporter \_\_\_\_\_

Date received \_\_\_\_\_

Time received \_\_\_\_\_

Truck/Tractor registration \_\_\_\_\_

Load size (cubic yards/tons) \_\_\_\_\_

Receiving facility \_\_\_\_\_

Date of shipment \_\_\_\_\_

Time of shipment \_\_\_\_\_

Trailer registration \_\_\_\_\_

### K. Log Sheet Volume Information

Total volume this page (cubic yards/tons) \_\_\_\_\_

Total carried forward (cubic yards/tons) \_\_\_\_\_

Total carried forward and this page (cubic yards/tons) \_\_\_\_\_

Page \_\_\_\_\_ of \_\_\_\_\_

12-134  
EQ-Devens

**RURO SAND & STONE CORP.**  
192 PLAIN ST. N. ATTLEBORO, MA 02760-4124  
508-699-2911 1-800-649-2676 (MTX BORO)


SOLD TO: DOWLING CORP.  
JOB: DEVONS  
DELIVER TO:

CUSTOMER NUMBER 37380  
TICKET NUMBER 75090  
TICKET DATE 11/20/2012  
TERMS NET 30 DAYS FROM INVO  
TRUCK: DRIVER:  
PO: LOT:  
WEIGHED BY: TIME OF DAY: 11:17

GROSS WEIGHT LBS. 57660 TARE WEIGHT LBS. 28200 NET WEIGHT LBS. 29460

| PRODUCT                 | U/M | QUANTITY | S-1X |
|-------------------------|-----|----------|------|
| CONCRETE/ASPHALT RUBBLE | TN  | 14.70    |      |

OUR TRUCKS ARE NOT PERMITTED TO GO  
BEYOND CURB LINE, EXCEPT BY OWNER'S OR  
CUSTOMER'S AUTHORIZATIONS, AND I HEREBY  
ACCEPT ALL RESPONSIBILITY FOR RESULTING  
DAMAGES.

RECEIVED BY: 

CUSTOMER COPY

**Shepley's Hill Landfill Barrier Wall**  
**On-Site Quality Control Backfill**  
**Fines Content Testing Results**

| Backfill Batch | Fines Content (%) | Backfill Batch | Fines Content (%) |
|----------------|-------------------|----------------|-------------------|
| 1              | 54                | 21             | 50                |
| 2              | 46                | 22             | 38                |
| 3              | 41                | 23             | 43                |
| 4              | 37                | 24             | 53                |
| 5              | 52                | 25             | 49                |
| 6              | 48                | 26             | 45                |
| 7              | 42                | 27             | 55                |
| 8              | 49                | 28             | 56                |
| 9              | 38                | 29             | 51                |
| 10             | 41                | 30             | 59                |
| 11             | 43                | 31             | 47                |
| 12             | 43                | 32             | 51                |
| 13             | 42                | 33             | 59                |
| 14             | 44                | 34             | 54                |
| 15             | 52                | 35             | 54                |
| 16             | 41                | 36             | 49                |
| 17             | 37                | 37             | 48                |
| 18             | 50                | 38             | 48                |
| 19             | 44                | 39             | 56                |
| 20             | 45                | 40             | 39                |

Notes: All on-site Backfill Fines Content testing completed by AMEC Eng.

Shepley's Hill Landfill Barrier wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## BENTONITE SLURRY

### DAILY QC RESULTS

DATE: 8/15/12

SHIFT NO. 1

INSPECTOR: D. Guy

|         |       | <u>VISCOSITY</u>     | <u>TWICE DAILY</u> |         |                  |
|---------|-------|----------------------|--------------------|---------|------------------|
|         | TIME  |                      | RESULT             |         | REQUIREMENT      |
| Initial | 9:44  |                      | 44.53              | SECONDS | >40              |
|         | 14:47 |                      | 42.66              |         |                  |
| Trench  |       |                      |                    |         | >40              |
|         |       |                      |                    |         |                  |
|         |       |                      |                    |         |                  |
|         |       | <u>DENSITY:</u>      | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            |         |                  |
| Initial | 9:46  |                      | 64.2               | PCF     | >64              |
|         | 14:53 |                      | 64.2               |         |                  |
| Trench  |       |                      |                    |         | 64 TO 90         |
|         |       |                      |                    |         | (AT LEAST 20 PCF |
|         |       |                      |                    |         | LIGHTER THAN BF) |
|         |       |                      |                    |         |                  |
|         |       | <u>FILTRATE LOSS</u> | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            |         |                  |
| Initial | 9:49  |                      | 17.8               | CC      | <25 IN 30 MINS.  |
|         | 15:00 |                      | 18.8               |         |                  |
| Trench  |       |                      |                    |         | <25 IN 30 MINS.  |
|         |       |                      |                    |         |                  |
|         |       |                      |                    |         |                  |
|         |       | <u>pH</u>            | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            |         |                  |
| Initial | 9:53  |                      | 7.5                |         | 7-10             |
|         | 15:02 |                      | 7.5                |         |                  |

COMMENTS / SPECIAL EVENTS:

SIGNED: \_\_\_\_\_ D. Guy  
CONTRACTOR'S QC



### BACKFILL SLOPE - END OF SHIFT

## DAILY QC RESULTS

**INSPECTOR: D. Guy**

**COMMENTS:**

**SIGNED:** D.Guy  
**CONTRACTOR'S QC**



Shepley's Hill Landfill Barrier wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## BENTONITE SLURRY

### DAILY QC RESULTS

DATE: 8/16/12

SHIFT NO. 1

INSPECTOR: D. Guy

|         |       | <u>VISCOSITY</u>     | <u>TWICE DAILY</u> |         |                  |
|---------|-------|----------------------|--------------------|---------|------------------|
|         | TIME  |                      | RESULT             | SECONDS | REQUIREMENT      |
| Initial | 8:19  |                      | 43.53              |         | >40              |
|         | 12:38 |                      | 41.32              |         |                  |
| Trench  | 9:30  |                      | 40.81              |         | >40              |
|         | 2:05  |                      | 42.1               |         |                  |
|         | 16:49 |                      | 41.8               |         |                  |
|         |       | <u>DENSITY:</u>      | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            | PCF     |                  |
| Initial | 8:24  |                      | 64.8               |         | >64              |
|         | 12:41 |                      | 64.5               |         |                  |
| Trench  | 9:33  |                      | 83.5               |         | 64 TO 90         |
|         | 2:07  |                      | 79.8               |         | (AT LEAST 20 PCF |
|         | 16:53 |                      | 83.0               |         | LIGHTER THAN BF) |
|         |       | <u>FILTRATE LOSS</u> | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            | CC      |                  |
| Initial | 9:05  |                      | 16.2               |         | <25 IN 30 MINS.  |
|         | 13:12 |                      | 16.6               |         |                  |
| Trench  | 10:08 |                      | 20.6               |         | <25 IN 30 MINS.  |
|         | 2:38  |                      | 22.4               |         |                  |
|         | 17:20 |                      | 21.1               |         |                  |
|         |       | <u>pH</u>            | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            |         |                  |
| Initial | 8:26  |                      | 7.5                |         | 7-10             |
|         | 12:43 |                      | 7.5                |         |                  |

COMMENTS / SPECIAL EVENTS:

SIGNED: \_\_\_\_\_ D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - START OF SHIFT**

**DAILY QC RESULTS**

DATE: 8/17                      SHIFT NO. 1                      INSPECTOR: D. Guy

| STATION<br>NO. | DEPTH |
|----------------|-------|
| 0-25           | 0     |
| 0-20           | 6.4   |
| 0-10           | 23    |
| 0+00           | 23.8  |
| 0+10           | 22    |
| 0+20           | 23.7  |
| 0+30           | 24.6  |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |

COMMENTS:

SIGNED: D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - END OF SHIFT**

**DAILY QC RESULTS**

**DATE:** 8/17/12

**SHIFT NO.** I

**INSPECTOR:** D. Guy

| STATION<br>NO. | DEPTH |
|----------------|-------|
| 0+ -25         | 0.0   |
| 0+ -20         | 3.0   |
| 0+ -10         | 13.8  |
| 0+00           | 13.8  |
| 0+10           | 18.0  |
| 0+20           | 19.7  |
| 0+30           | 20.6  |
| 0+40           | 24.2  |
| 0+50           | 27.0  |
| 0+60           | 29.0  |
| 0+70           | 29.0  |
| 0+80           | 23.7  |
| 0+90           | 22.3  |
| 1+00           | 7.8   |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |

**COMMENTS:**

**SIGNED:** D.Guy  
CONTRACTOR'S QC

# MORETRENCH

100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## SOIL-BENTONITE BACKFILL

### DAILY QC RESULTS

DATE: 8/17/12

SHIFT NO. I

INSPECTOR: D. Guy

#### SLUMP

1 per Batch

#### REQUIREMENT

STATION

TIME

RESULT

|  |
|--|
|  |
|  |
|  |

|      |
|------|
| 8:12 |
|      |
|      |

|      |
|------|
| 3.75 |
|      |
|      |

INCHES

3" TO 6"  
(Prior to Backfilling)

#### DENSITY

PRIOR TO BACKFILLING - TWICE DAILY

STATION

TIME

RESULT

|  |
|--|
|  |
|  |

|       |
|-------|
| 8:45  |
| 13:34 |

|       |
|-------|
| 121   |
| 119.5 |

PCF

110-125 pcf  
20 PCF > Slurry Unit  
Weight

#### PERMEABILITY

(Laboratory) EVERY 300 CY OF BACKFILL

STATION

SAMPLE NO.

|  |
|--|
|  |
|  |

|  |
|--|
|  |
|  |

<  $1 \times 10^{-7}$  CM/SEC

#### GRADATION

(Laboratory) EVERY 300 CY OF BACKFILL

STATION

SAMPLE NO.

|  |
|--|
|  |
|  |

|  |
|--|
|  |
|  |

30% - 40% < #200

#### FINES

(Laboratory) EVERY 100 CY OF BACKFILL

STATION

SAMPLE NO.

|  |
|--|
|  |
|--|

|  |
|--|
|  |
|--|

30% - 40% < #200

Shepley's Hill Landfill Barrier wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## BENTONITE SLURRY

### DAILY QC RESULTS

DATE: 8/16/12

SHIFT NO. 1

INSPECTOR: D. Guy

|         |       | <u>VISCOSITY</u>     | <u>TWICE DAILY</u> |         |                  |
|---------|-------|----------------------|--------------------|---------|------------------|
|         | TIME  |                      | RESULT             | SECONDS | REQUIREMENT      |
| Initial | 8:34  |                      | 44.1               |         | >40              |
|         | 12:39 |                      | 42.31              |         |                  |
| Trench  | 9:34  |                      | 44.6               |         | >40              |
|         | 2:05  |                      | 50.75              |         |                  |
|         | 16:50 |                      | 43.5               |         |                  |
|         |       | <u>DENSITY:</u>      | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            | PCF     |                  |
| Initial | 8:37  |                      | 64.2               |         | >64              |
|         | 12:41 |                      | 64.5               |         |                  |
| Trench  | 9:37  |                      | 83.5               |         | 64 TO 90         |
|         | 2:09  |                      | 92.5               |         | (AT LEAST 20 PCF |
|         | 16:53 |                      | 83.5               |         | LIGHTER THAN BF) |
|         |       | <u>FILTRATE LOSS</u> | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            | CC      |                  |
| Initial | 9:09  |                      | 17.3               |         | <25 IN 30 MINS.  |
|         | 13:12 |                      | 16.6               |         |                  |
| Trench  | 10:08 |                      | 19.2               |         | <25 IN 30 MINS.  |
|         | 2:41  |                      | 25.4               |         |                  |
|         | 17:21 |                      | 22.1               |         |                  |
|         |       | <u>pH</u>            | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            |         |                  |
| Initial | 8:36  |                      | 7                  |         | 7-10             |
|         | 12:43 |                      | 7                  |         |                  |

COMMENTS / SPECIAL EVENTS:

SIGNED: \_\_\_\_\_ D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - START OF SHIFT**

**DAILY QC RESULTS**

**DATE:** 8/20/12

**SHIFT NO.** 1

**INSPECTOR:** D. Guy

| STATION<br>NO. | DEPTH |
|----------------|-------|
| 0-25           | 0.0   |
| 0-20           | 3.2   |
| 0-10           | 14.2  |
| 0+00           | 14.5  |
| 0+10           | 17.8  |
| 0+20           | 19.5  |
| 0+30           | 21.7  |
| 0+40           | 24.0  |
| 0+50           | 27.2  |
| 0+60           | 29.0  |
| 0+70           | 30.2  |
| 0+80           | 22.6  |
| 0+90           | 15.8  |
| 1+00           | 6.6   |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |

**COMMENTS:**

**SIGNED:** D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## BACKFILL SLOPE - END OF SHIFT

### DAILY QC RESULTS

DATE: 8/20/12

SHIFT NO. 1

INSPECTOR: D. Guy

| STATION<br>NO. | DEPTH |
|----------------|-------|
| 0+ -25         | 0.0   |
| 0+ -20         | 0.0   |
| 0+ -10         | 0.0   |
| 0+00           | 0.0   |
| 0+10           | 0.0   |
| 0+20           | 0.0   |
| 0+30           | 0.0   |
| 0+40           | 6.7   |
| 0+50           | 9.5   |
| 0+60           | 11.0  |
| 0+70           | 13.4  |
| 0+80           | 15.3  |
| 0+90           | 17.0  |
| 1+00           | 18.0  |
| 1+10           | 21.6  |
| 1+20           | 22.5  |
| 1+30           | 22.7  |
| 1+40           | 24.1  |
| 1+50           | 24.9  |
| 1+60           | 25.2  |
| 1+70           | 27.0  |
| 1+80           | 26.2  |
| 1+90           | 8.0   |
|                |       |

COMMENTS:

SIGNED: D.Guy  
CONTRACTOR'S QC

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**SOIL-BENTONITE BACKFILL**

**DAILY QC RESULTS**

DATE: 8/20/12

SHIFT NO. I

INSPECTOR: D. Guy

SLUMP

I per Batch

REQUIREMENT

STATION

TIME

RESULT

8:32

11:45

4

3

INCHES

3" TO 6"

(Prior to Backfilling)

DENSITY

PRIOR TO BACKFILLING - TWICE DAILY

STATION

TIME

RESULT

8:45

12:45

122.6

121.5

PCF

110-125 pcf

20 PCF>Slurry Unit Weight

PERMEABILITY

(Laboratory) EVERY 300 CY OF BACKFILL

STATION

SAMPLE NO.

<1X10<sup>-7</sup> CM/SEC

GRADATION

(Laboratory) EVERY 300 CY OF BACKFILL

STATION

SAMPLE NO.

30% - 40%%<#200

FINES

(Laboratory) EVERY 100 CY OF BACKFILL

STATION

SAMPLE NO.

30% - 40%%<#200



Shepley's Hill Landfill Barrier wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## BENTONITE SLURRY

### DAILY QC RESULTS

DATE: 8/20/12

SHIFT NO. 1

INSPECTOR: D. Guy

|         |       | <u>VISCOSITY</u>     | <u>TWICE DAILY</u> |         |                  |
|---------|-------|----------------------|--------------------|---------|------------------|
|         | TIME  |                      | RESULT             | SECONDS | REQUIREMENT      |
| Initial | 12:50 |                      | 38.5               |         | >40              |
|         | 2:54  |                      | 39.9               |         |                  |
| Trench  | 8:49  | 0+70                 | 37.5               |         | >40              |
|         | 10:15 | 1+20                 | 56.25              |         |                  |
|         | 15:30 | 1+30                 | 48.2               |         |                  |
|         |       | <u>DENSITY:</u>      | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            | PCF     |                  |
| Initial | 12:53 |                      | 64.2               |         | >63              |
|         | 2:56  |                      | 64.2               |         |                  |
| Trench  | 8:51  |                      | 76.5               |         | 64 TO 90         |
|         | 10:18 |                      | 94                 |         | (AT LEAST 20 PCF |
|         | 15:34 |                      | 79.8               |         | LIGHTER THAN BF) |
|         |       | <u>FILTRATE LOSS</u> | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            | CC      |                  |
| Initial | 13:24 |                      | 17.8               |         | <25 IN 30 MINS.  |
|         | 15:28 |                      | 19                 |         |                  |
| Trench  | 9:21  |                      | 22.8               |         | <25 IN 30 MINS.  |
|         | 10:48 |                      | 26.6               |         |                  |
|         | 16:05 |                      | 18.8               |         |                  |
|         |       | <u>pH</u>            | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            |         |                  |
| Initial | 12:56 |                      | 7                  |         | 7-10             |
|         | 3:00  |                      | 7                  |         |                  |

COMMENTS / SPECIAL EVENTS:

SIGNED: \_\_\_\_\_ D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - START OF SHIFT**

**DAILY QC RESULTS**

**DATE:** 8/21/12

**SHIFT NO.** 1

**INSPECTOR:** D. Guy

| STATION<br>NO. | DEPTH |
|----------------|-------|
| 0+30           | 0.0   |
| 0+40           | 6.6   |
| 0+50           | 9.5   |
| 0+60           | 11.1  |
| 0+70           | 13.4  |
| 0+80           | 15.1  |
| 0+90           | 17.0  |
| 1+00           | 18.0  |
| 1+10           | 21.4  |
| 1+20           | 22.6  |
| 1+30           | 22.9  |
| 1+40           | 24.0  |
| 1+50           | 24.8  |
| 1+60           | 25.0  |
| 1+70           | 26.9  |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |

**COMMENTS:**

**SIGNED:** D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - END OF SHIFT**

**DAILY QC RESULTS**

**DATE:** 8/21/12

**SHIFT NO.** 1

**INSPECTOR:** D. Guy

| STATION<br>NO. | DEPTH |
|----------------|-------|
| 1+00           | 0.0   |
| 1+10           | 4.3   |
| 1+20           | 12.6  |
| 1+30           | 15.8  |
| 1+40           | 17.8  |
| 1+50           | 19.5  |
| 1+60           | 21.3  |
| 1+70           | 24.4  |
| 1+80           | 27.0  |
| 1+90           | 26.4  |
| 2+00           | 28.6  |
| 2+10           | 29.0  |
| 2+20           | 30.9  |
| 2+30           | 30.1  |
| 2+40           | 30.0  |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |

**COMMENTS:**

**SIGNED:** D.Guy  
CONTRACTOR'S QC

# MORETRENCH

100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## SOIL-BENTONITE BACKFILL

### DAILY QC RESULTS

DATE: 8/21/12

SHIFT NO. 1

INSPECTOR: D. Guy

#### SLUMP

1 per Batch

#### REQUIREMENT

STATION

TIME

RESULT

|  |
|--|
|  |
|  |
|  |

|       |
|-------|
| 8:45  |
| 11:45 |
| 14:39 |

|   |
|---|
| 3 |
| 4 |
| 3 |

INCHES

3" TO 6"  
(Prior to Backfilling)

#### DENSITY

PRIOR TO BACKFILLING - TWICE DAILY

STATION

TIME

RESULT

|  |
|--|
|  |
|  |

|       |
|-------|
| 8:53  |
| 12:00 |
| 14:51 |

|       |
|-------|
| 121.5 |
| 124   |
| 121.5 |

PCF

110-125 pcf  
20 PCF > Slurry Unit  
Weight

#### PERMEABILITY

(Laboratory) EVERY 300 CY OF BACKFILL

STATION

SAMPLE NO.

|  |
|--|
|  |
|  |

|  |
|--|
|  |
|  |

<  $1 \times 10^{-7}$  CM/SEC

#### GRADATION

(Laboratory) EVERY 300 CY OF BACKFILL

STATION

SAMPLE NO.

|  |
|--|
|  |
|  |

|  |
|--|
|  |
|  |

30% - 40% < #200

#### FINES

(Laboratory) EVERY 100 CY OF BACKFILL

STATION

SAMPLE NO.

|  |
|--|
|  |
|--|

|  |
|--|
|  |
|--|

30% - 40% < #200

Shepley's Hill Landfill Barrier wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## BENTONITE SLURRY

### DAILY QC RESULTS

DATE: 8/21/12

SHIFT NO. 1

INSPECTOR: D. Guy

|         |       | <u>VISCOSITY</u>     | <u>TWICE DAILY</u> |         |                  |
|---------|-------|----------------------|--------------------|---------|------------------|
|         | TIME  |                      | RESULT             | SECONDS | REQUIREMENT      |
| Initial | 8:45  |                      | 40.1               |         | >40              |
|         | 14:54 |                      | 40                 |         |                  |
| Trench  | 8:49  | I + 00               | 49.6               |         | >40              |
|         | 11:06 | I + 20               | 49.3               |         |                  |
|         | 15:40 | I + 50               | 49.5               |         |                  |
|         |       | <u>DENSITY:</u>      | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            | PCF     |                  |
| Initial | 8:53  |                      | 64.2               |         | >63              |
|         | 14:56 |                      | 64.4               |         |                  |
| Trench  | 8:53  |                      | 88.4               |         | 64 TO 90         |
|         | 11:08 |                      | 87.5               |         | (AT LEAST 20 PCF |
|         | 15:44 |                      | 88.0               |         | LIGHTER THAN BF) |
|         |       | <u>FILTRATE LOSS</u> | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            | CC      |                  |
| Initial | 9:24  |                      | 18.8               |         | <25 IN 30 MINS.  |
|         | 15:28 |                      | 19.1               |         |                  |
| Trench  | 9:31  |                      | 20.5               |         | <25 IN 30 MINS.  |
|         | 11:40 |                      | 21.4               |         |                  |
|         | 16:07 |                      | 21.2               |         |                  |
|         |       | <u>pH</u>            | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            |         |                  |
| Initial | 9:00  |                      | 7.5                |         | 7-10             |
|         | 15:00 |                      | 7                  |         |                  |

COMMENTS / SPECIAL EVENTS:

SIGNED: \_\_\_\_\_ D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - START OF SHIFT**

**DAILY QC RESULTS**

**DATE:** 8/22/12

**SHIFT NO.** 1

**INSPECTOR:** D. Guy

| STATION<br>NO. | DEPTH |
|----------------|-------|
| 1+00           | 0.0   |
| 1+10           | 4.4   |
| 1+20           | 12.6  |
| 1+30           | 16.4  |
| 1+40           | 18.2  |
| 1+50           | 19.7  |
| 1+60           | 22.0  |
| 1+70           | 24.8  |
| 1+80           | 26.8  |
| 1+90           | 26.3  |
| 2+00           | 28.7  |
| 2+10           | 29.0  |
| 2+20           | 30.7  |
| 2+30           | 30.0  |
| 2+40           | 30.0  |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |

**COMMENTS:**

**SIGNED:** D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - END OF SHIFT**

**DAILY QC RESULTS**

**DATE:** 8/22/12

**SHIFT NO.** 1

**INSPECTOR:** D. Guy

| STATION<br>NO. | DEPTH |
|----------------|-------|
| 1+70           | 0.0   |
| 1+80           | 11.5  |
| 1+90           | 14.8  |
| 2+00           | 15.8  |
| 2+10           | 17.3  |
| 2+20           | 22.3  |
| 2+30           | 23.7  |
| 2+40           | 26.0  |
| 2+50           | 26.6  |
| 2+60           | 28.2  |
| 2+70           | 32.5  |
| 2+80           | 36.4  |
| 2+90           | 36.7  |
| 3+00           | 36.2  |
| 3+10           | 36.0  |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |

**COMMENTS:**

**SIGNED:** D.Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## SOIL-BENTONITE BACKFILL

### DAILY QC RESULTS

DATE: 8/22/12

SHIFT NO. I

INSPECTOR: D. Guy

| SLUMP   | I per Batch                        | REQUIREMENT |
|---------|------------------------------------|-------------|
| STATION | TIME                               | RESULT      |
|         | 8:30                               | 3 INCHES    |
|         | 11:15                              | 3.5         |
|         | 15:30                              | 4.5         |
| DENSITY | PRIOR TO BACKFILLING - TWICE DAILY |             |

3" TO 6"  
(Prior to Backfilling)

|              |                                       |           |                      |
|--------------|---------------------------------------|-----------|----------------------|
| STATION      | TIME                                  | RESULT    |                      |
|              | 8:40                                  | 120.5 PCF | 110-125 pcf          |
|              | 11:50                                 | 121       | 20 PCF > Slurry Unit |
|              | 15:39                                 | 123.5     | Weight               |
| PERMEABILITY | (Laboratory) EVERY 300 CY OF BACKFILL |           |                      |

|         |            |                             |
|---------|------------|-----------------------------|
| STATION | SAMPLE NO. |                             |
|         |            | < $1 \times 10^{-7}$ CM/SEC |

|           |                                       |                  |
|-----------|---------------------------------------|------------------|
| GRADATION | (Laboratory) EVERY 300 CY OF BACKFILL |                  |
| STATION   | SAMPLE NO.                            |                  |
|           |                                       | 30% - 40% < #200 |

|         |                                       |                  |
|---------|---------------------------------------|------------------|
| FINES   | (Laboratory) EVERY 100 CY OF BACKFILL |                  |
| STATION | SAMPLE NO.                            |                  |
|         |                                       | 30% - 40% < #200 |



Shepley's Hill Landfill Barrier wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## BENTONITE SLURRY

### DAILY QC RESULTS

DATE: 8/22/12

SHIFT NO. 1

INSPECTOR: D. Guy

|         |       | <u>VISCOSITY</u>     | <u>TWICE DAILY</u> |         |                  |
|---------|-------|----------------------|--------------------|---------|------------------|
|         | TIME  |                      | RESULT             | SECONDS | REQUIREMENT      |
| Initial | 11:00 |                      | 40.2               |         | >40              |
|         | 15:13 |                      | 40.1               |         |                  |
| Trench  | 9:20  | 2+40                 | 45.4               |         | >40              |
|         | 13:30 | 2+00                 | 54.4               |         |                  |
|         | 14:34 | 1+60                 | 49.3               |         |                  |
|         |       | <u>DENSITY:</u>      | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            | PCF     |                  |
| Initial | 11:05 |                      | 64.4               |         | >63              |
|         | 15:16 |                      | 64.4               |         |                  |
| Trench  | 9:22  |                      | 82.5               |         | 64 TO 90         |
|         | 13:33 |                      | 92.5               |         | (AT LEAST 20 PCF |
|         | 14:36 |                      | 86.3               |         | LIGHTER THAN BF) |
|         |       | <u>FILTRATE LOSS</u> | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            | CC      |                  |
| Initial | 11:35 |                      | 19                 |         | <25 IN 30 MINS.  |
|         | 15:46 |                      | 19.1               |         |                  |
| Trench  | 9:54  |                      | 20                 |         | <25 IN 30 MINS.  |
|         | 14:04 |                      | 26                 |         |                  |
|         | 15:08 |                      | 21.4               |         |                  |
|         |       | <u>pH</u>            | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            |         |                  |
| Initial | 11:08 |                      | 7.5                |         | 7-10             |
|         | 15:18 |                      | 7                  |         |                  |

COMMENTS / SPECIAL EVENTS:

SIGNED: \_\_\_\_\_ D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - START OF SHIFT**

**DAILY QC RESULTS**

**DATE:** 8/23/12

**SHIFT NO.** 1

**INSPECTOR:** D. Guy

| STATION<br>NO. | DEPTH |
|----------------|-------|
| 1+70           | 0.0   |
| 1+80           | 12.5  |
| 1+90           | 15.6  |
| 2+00           | 16.5  |
| 2+10           | 17.5  |
| 2+20           | 22.4  |
| 2+30           | 24.1  |
| 2+40           | 26.9  |
| 2+50           | 26.7  |
| 2+60           | 28.4  |
| 2+70           | 32.5  |
| 2+80           | 36.4  |
| 2+90           | 36.8  |
| 3+00           | 36.4  |
| 3+10           | 36.3  |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |

**COMMENTS:**

**SIGNED:** D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - END OF SHIFT**

**DAILY QC RESULTS**

DATE: 8/23/12                      SHIFT NO. 1                      INSPECTOR: D. Guy

| STATION NO. | DEPTH |
|-------------|-------|
| 2+30        | 0.0   |
| 2+40        | 4.5   |
| 2+50        | 11.7  |
| 2+60        | 17.7  |
| 2+70        | 23.2  |
| 2+80        | 25.6  |
| 2+90        | 26.6  |
| 3+00        | 29.4  |
| 3+10        | 30.5  |
| 3+20        | 32.7  |
| 3+30        | 35.9  |
| 3+40        | 39.0  |
| 3+50        | 38.8  |
| 3+60        | 16.0  |
|             |       |
|             |       |
|             |       |
|             |       |
|             |       |
|             |       |
|             |       |
|             |       |
|             |       |

COMMENTS:

SIGNED: D.Guy  
CONTRACTOR'S QC

Shepley's Hill Barrier Wall  
 Soil-Bentonite Wall  
 Ft. Devens, MA

**SOIL-BENTONITE BACKFILL**

**DAILY QC RESULTS**

DATE: 8/23/12

SHIFT NO.        I

INSPECTOR: D. Guy

| SLUMP       | I per Batch                        | REQUIREMENT                        |
|-------------|------------------------------------|------------------------------------|
| STATION     | TIME                               | RESULT                             |
| <div></div> | 9:02                               | 3                                  |
| <div></div> | 12:45                              | 3                                  |
| <div></div> | 15:45                              | 3                                  |
| DENSITY     | PRIOR TO BACKFILLING - TWICE DAILY | INCHES                             |
|             |                                    | 3" TO 6"<br>(Prior to Backfilling) |

|              |                                       |        |                                             |
|--------------|---------------------------------------|--------|---------------------------------------------|
| STATION      | TIME                                  | RESULT |                                             |
| <div></div>  | 9:12                                  | 121    | PCF                                         |
| <div></div>  | 13:00                                 | 121.5  |                                             |
| <div></div>  | 16:00                                 | 122    |                                             |
| PERMEABILITY | (Laboratory) EVERY 300 CY OF BACKFILL |        | 110-125 pcf<br>20 PCF>Slurry Unit<br>Weight |

|             |                                       |                            |
|-------------|---------------------------------------|----------------------------|
| STATION     | SAMPLE NO.                            |                            |
| <div></div> | <div></div>                           | <1X10 <sup>-7</sup> CM/SEC |
| <div></div> | <div></div>                           |                            |
| GRADATION   | (Laboratory) EVERY 300 CY OF BACKFILL |                            |

|             |             |                 |
|-------------|-------------|-----------------|
| STATION     | SAMPLE NO.  |                 |
| <div></div> | <div></div> | 30% - 40%%<#200 |
| <div></div> | <div></div> |                 |

|             |                                       |                 |
|-------------|---------------------------------------|-----------------|
| FINES       | (Laboratory) EVERY 100 CY OF BACKFILL |                 |
| STATION     | SAMPLE NO.                            |                 |
| <div></div> | <div></div>                           | 30% - 40%%<#200 |

Shepley's Hill Landfill Barrier wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## BENTONITE SLURRY

### DAILY QC RESULTS

DATE: 8/23/12

SHIFT NO. 1

INSPECTOR: D. Guy

|         |       | <u>VISCOSITY</u>     | <u>TWICE DAILY</u> |         |                  |
|---------|-------|----------------------|--------------------|---------|------------------|
|         | TIME  |                      | RESULT             | SECONDS | REQUIREMENT      |
| Initial | 10:04 |                      | 41.2               |         | >40              |
|         | 15:02 |                      | 42.4               |         |                  |
| Trench  | 8:50  | 2+50                 | 57.7               |         | >40              |
|         | 13:30 | 3+00                 | 54.3               |         |                  |
|         | 14:34 | 2+00                 | 55.4               |         |                  |
|         |       | <u>DENSITY:</u>      | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            | PCF     |                  |
| Initial | 10:07 |                      | 64.4               |         | >63              |
|         | 15:04 |                      | 64.5               |         |                  |
| Trench  | 8:53  |                      | 92                 |         | 64 TO 90         |
|         | 13:33 |                      | 91                 |         | (AT LEAST 20 PCF |
|         | 14:36 |                      | 91.5               |         | LIGHTER THAN BF) |
|         |       | <u>FILTRATE LOSS</u> | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            | CC      |                  |
| Initial | 10:39 |                      | 18                 |         | <25 IN 30 MINS.  |
|         | 15:46 |                      | 18.8               |         |                  |
| Trench  | 9:27  |                      | 24                 |         | <25 IN 30 MINS.  |
|         | 14:04 |                      | 26.5               |         |                  |
|         | 15:08 |                      | 24                 |         |                  |
|         |       | <u>pH</u>            | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            |         |                  |
| Initial | 10:11 |                      | 7                  |         | 7-10             |
|         | 15:08 |                      | 7                  |         |                  |

COMMENTS / SPECIAL EVENTS:

SIGNED: \_\_\_\_\_ D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - START OF SHIFT**

**DAILY QC RESULTS**

**DATE:** 8/27/12

**SHIFT NO.** I

**INSPECTOR:** D. Guy

| STATION<br>NO. | DEPTH |
|----------------|-------|
| 2+30           | 0.0   |
| 2+40           | 4.8   |
| 2+50           | 12.0  |
| 2+60           | 18.3  |
| 2+70           | 23.2  |
| 2+80           | 26.5  |
| 2+90           | 26.8  |
| 3+00           | 30.1  |
| 3+10           | 30.5  |
| 3+20           | 34.4  |
| 3+30           | 35.9  |
| 3+40           | 37.8  |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |

**COMMENTS:**

**SIGNED:** D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## BACKFILL SLOPE - END OF SHIFT

### DAILY QC RESULTS

DATE: 8/27/12

SHIFT NO. 1

INSPECTOR: D. Guy

| STATION<br>NO. | DEPTH |    |
|----------------|-------|----|
| 2+60           | 0.0   |    |
| 2+70           | 2.0   |    |
| 2+80           | 4.0   |    |
| 2+90           | 7.4   |    |
| 3+00           | 11.7  |    |
| 3+10           | 16.5  |    |
| 3+20           | 22.4  |    |
| 3+30           | 27.7  |    |
| 3+40           | 29.4  |    |
| 3+50           | 31.5  |    |
| 3+60           | 32.4  |    |
| 3+70           | 36.6  |    |
| 3+80           | 43.3  |    |
| 3+90           | 43.6  | ND |
| 4+00           | 28.1  | ND |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |

COMMENTS:

SIGNED: D.Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## SOIL-BENTONITE BACKFILL

### DAILY QC RESULTS

DATE: 8/27/12

SHIFT NO. I

INSPECTOR: D. Guy

| SLUMP   | I per Batch                        | REQUIREMENT                        |
|---------|------------------------------------|------------------------------------|
| STATION | TIME                               | RESULT                             |
|         | 10:05                              | 3                                  |
|         | 13:45                              | 3                                  |
|         | 15:50                              | 3                                  |
| DENSITY | PRIOR TO BACKFILLING - TWICE DAILY | 3" TO 6"<br>(Prior to Backfilling) |

| STATION      | TIME                                  | RESULT |                                             |
|--------------|---------------------------------------|--------|---------------------------------------------|
|              | 10:20                                 | 116    | PCF                                         |
|              | 14:00                                 | 117    |                                             |
|              | 16:20                                 | 117    |                                             |
| PERMEABILITY | (Laboratory) EVERY 300 CY OF BACKFILL |        | 110-125 pcf<br>20 PCF>Slurry Unit<br>Weight |

|         |            |                            |
|---------|------------|----------------------------|
| STATION | SAMPLE NO. |                            |
|         |            | <1X10 <sup>-7</sup> CM/SEC |

|           |                                       |                 |
|-----------|---------------------------------------|-----------------|
| GRADATION | (Laboratory) EVERY 300 CY OF BACKFILL |                 |
| STATION   | SAMPLE NO.                            |                 |
|           |                                       | 30% - 40%%<#200 |

|         |                                       |                 |
|---------|---------------------------------------|-----------------|
| FINES   | (Laboratory) EVERY 100 CY OF BACKFILL |                 |
| STATION | SAMPLE NO.                            |                 |
|         |                                       | 30% - 40%%<#200 |



Shepley's Hill Landfill Barrier wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## BENTONITE SLURRY

### DAILY QC RESULTS

DATE: 8/27/12

SHIFT NO. 1

INSPECTOR: D. Guy

|         |       | <u>VISCOSITY</u>     | <u>TWICE DAILY</u> |         |                  |
|---------|-------|----------------------|--------------------|---------|------------------|
|         | TIME  |                      | RESULT             | SECONDS | REQUIREMENT      |
| Initial | 8:50  |                      | 45.2               |         | >40              |
|         | 13:15 |                      | 39.7               |         |                  |
| Trench  | 11:30 | 2+50                 | 70.4               |         | >40              |
|         | 14:15 | 3+00                 | 70.1               |         |                  |
|         | 15:10 | 2+00                 | 55.4               |         |                  |
|         |       | <u>DENSITY:</u>      | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            | PCF     |                  |
| Initial | 8:54  |                      | 64.4               |         | >63              |
|         | 13:16 |                      | 63.8               |         |                  |
| Trench  | 11:33 |                      | 94.5               |         | <b>64 TO 90</b>  |
|         | 14:18 |                      | 95                 |         | (AT LEAST 20 PCF |
|         | 15:15 |                      | 89.0               |         | LIGHTER THAN BF) |
|         |       | <u>FILTRATE LOSS</u> | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            | CC      |                  |
| Initial | 9:25  |                      | 18.2               |         | <25 IN 30 MINS.  |
|         | 13:47 |                      | 19                 |         |                  |
| Trench  | 12:04 |                      | 26                 |         | <25 IN 30 MINS.  |
|         | 14:49 |                      | 26.5               |         |                  |
|         | 15:50 |                      | 24                 |         |                  |
|         |       | <u>pH</u>            | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            |         |                  |
| Initial | 9:00  |                      | 7                  |         | 7-10             |
|         | 15:08 |                      | 7                  |         |                  |

COMMENTS / SPECIAL EVENTS:

SIGNED: \_\_\_\_\_ D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - START OF SHIFT**

**DAILY QC RESULTS**

DATE: 8/28/12                      SHIFT NO. 1                      INSPECTOR: D. Guy

| STATION NO. | DEPTH |    |
|-------------|-------|----|
| 2+60        | 0.0   |    |
| 2+70        | 2.0   |    |
| 2+80        | 4.0   |    |
| 2+90        | 7.5   |    |
| 3+00        | 13.2  |    |
| 3+10        | 17.7  |    |
| 3+20        | 20.5  |    |
| 3+30        | 28.0  |    |
| 3+40        | 29.8  |    |
| 3+50        | 32.0  |    |
| 3+60        | 33.0  |    |
| 3+70        | 36.7  |    |
| 3+80        | 43.3  |    |
| 3+90        | 43.5  | ND |
| 4+00        | 28.1  | ND |
|             |       |    |
|             |       |    |
|             |       |    |
|             |       |    |
|             |       |    |
|             |       |    |
|             |       |    |
|             |       |    |

COMMENTS:

SIGNED: D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - END OF SHIFT**

**DAILY QC RESULTS**

DATE: 8/28/12                      SHIFT NO. 1                      INSPECTOR: D. Guy

| STATION<br>NO. | DEPTH |    |
|----------------|-------|----|
| 2+80           | 0.0   |    |
| 2+90           | 3.3   |    |
| 3+00           | 7.5   |    |
| 3+10           | 8.0   |    |
| 3+20           | 13.2  |    |
| 3+30           | 17.1  |    |
| 3+40           | 29.1  |    |
| 3+50           | 31.5  |    |
| 3+60           | 33.9  |    |
| 3+70           | 36.5  |    |
| 3+80           | 37.0  |    |
| 3+90           | 37.0  |    |
| 4+00           | 39.2  |    |
| 4+10           | 41.8  | ND |
| 4+20           | 39.4  | ND |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |

COMMENTS:

SIGNED: D.Guy  
CONTRACTOR'S QC

Shepley's Hill Barrier Wall  
 Soil-Bentonite Wall  
 Ft. Devens, MA

**SOIL-BENTONITE BACKFILL**

**DAILY QC RESULTS**

DATE: 8/28/12

SHIFT NO.        I

INSPECTOR: D. Guy

| SLUMP       | I per Batch                        | REQUIREMENT         |
|-------------|------------------------------------|---------------------|
| STATION     | TIME                               | RESULT              |
| <div></div> | <div>10:45</div>                   | <div>3</div> INCHES |
| <div></div> | <div>15:45</div>                   | <div>3</div>        |
| <div></div> |                                    |                     |
| DENSITY     | PRIOR TO BACKFILLING - TWICE DAILY |                     |

3" TO 6"  
 (Prior to Backfilling)

| STATION      | TIME                                  | RESULT |                                             |
|--------------|---------------------------------------|--------|---------------------------------------------|
|              | 11:00                                 | 119.5  | 110-125 pcf<br>20 PCF>Slurry Unit<br>Weight |
|              | 16:00                                 | 120    |                                             |
|              |                                       |        |                                             |
| PERMEABILITY | (Laboratory) EVERY 300 CY OF BACKFILL |        |                                             |

|             |             |                            |
|-------------|-------------|----------------------------|
| STATION     | SAMPLE NO.  |                            |
| <div></div> | <div></div> | <1X10 <sup>-7</sup> CM/SEC |
| <div></div> | <div></div> |                            |

|             |                                       |                 |
|-------------|---------------------------------------|-----------------|
| GRADATION   | (Laboratory) EVERY 300 CY OF BACKFILL |                 |
| STATION     | SAMPLE NO.                            |                 |
| <div></div> | <div></div>                           | 30% - 40%%<#200 |
| <div></div> | <div></div>                           |                 |

|             |                                       |                 |
|-------------|---------------------------------------|-----------------|
| FINES       | (Laboratory) EVERY 100 CY OF BACKFILL |                 |
| STATION     | SAMPLE NO.                            |                 |
| <div></div> | <div></div>                           | 30% - 40%%<#200 |

Shepley's Hill Landfill Barrier wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## BENTONITE SLURRY

### DAILY QC RESULTS

DATE: 8/28/12

SHIFT NO. 1

INSPECTOR: D. Guy

| <u>VISCOSITY</u>     |       |      | <u>TWICE DAILY</u> | SECONDS | REQUIREMENT                                      |
|----------------------|-------|------|--------------------|---------|--------------------------------------------------|
| Initial              | TIME  |      | RESULT             |         |                                                  |
|                      | 12:50 |      | 39.5               |         | >40                                              |
|                      |       |      |                    |         |                                                  |
| Trench               | 14:20 | 3+60 | 50.4               |         | >40                                              |
|                      | 15:35 | 3+20 | 53.6               |         |                                                  |
|                      |       |      |                    |         |                                                  |
| <u>DENSITY:</u>      |       |      | <u>TWICE DAILY</u> | PCF     | 64 TO 90<br>(AT LEAST 20 PCF<br>LIGHTER THAN BF) |
| Initial              | TIME: |      | RESULT:            |         |                                                  |
|                      | 12:55 |      | 63.8               |         | >63                                              |
|                      |       |      |                    |         |                                                  |
| Trench               | 14:23 |      | 87                 |         |                                                  |
|                      | 15:38 |      | 88.4               |         |                                                  |
|                      |       |      |                    |         |                                                  |
| <u>FILTRATE LOSS</u> |       |      | <u>TWICE DAILY</u> | CC      | <25 IN 30 MINS.<br><br><25 IN 30 MINS.           |
| Initial              | TIME: |      | RESULT:            |         |                                                  |
|                      | 13:26 |      | 18.4               |         |                                                  |
|                      |       |      |                    |         |                                                  |
| Trench               | 14:55 |      | 26                 |         |                                                  |
|                      | 16:10 |      | 26                 |         |                                                  |
|                      |       |      |                    |         |                                                  |
| <u>pH</u>            |       |      | <u>TWICE DAILY</u> |         | 7-10                                             |
| Initial              | TIME: |      | RESULT:            |         |                                                  |
|                      | 12:58 |      | 7                  |         |                                                  |
|                      |       |      |                    |         |                                                  |

#### COMMENTS / SPECIAL EVENTS:

\*\* Only worked on Trench for a 1/2 Shift (Started Digging at 12:30 pm)

SIGNED: \_\_\_\_\_ D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - START OF SHIFT**

**DAILY QC RESULTS**

DATE: 8/29/12                      SHIFT NO. 1                      INSPECTOR: D. Guy

| STATION<br>NO. | DEPTH |
|----------------|-------|
| 2+80           | 0.0   |
| 2+90           | 3.3   |
| 3+00           | 7.3   |
| 3+10           | 8.2   |
| 3+20           | 14.2  |
| 3+30           | 18.1  |
| 3+40           | 31.2  |
| 3+50           | 32.3  |
| 3+60           | 34.5  |
| 3+70           | 37.3  |
| 3+80           | 37.4  |
| 3+90           | 38.1  |
| 4+00           | 39.3  |
| 4+10           | 41.8  |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |

ND

COMMENTS:

SIGNED: D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - END OF SHIFT**

**DAILY QC RESULTS**

**DATE:** 8/29/12

**SHIFT NO.** I

**INSPECTOR:** D. Guy

| STATION<br>NO. | DEPTH |    |
|----------------|-------|----|
| 3+10           | 0.0   |    |
| 3+20           | 1.0   |    |
| 3+30           | 5.1   |    |
| 3+40           | 12.0  |    |
| 3+50           | 18.8  |    |
| 3+60           | 22.9  |    |
| 3+70           | 24.9  |    |
| 3+80           | 26.4  |    |
| 3+90           | 26.4  |    |
| 4+00           | 26.6  |    |
| 4+10           | 26.8  |    |
| 4+20           | 29.5  |    |
| 4+30           | 29.8  |    |
| 4+40           | 32.1  |    |
| 4+50           | 32.8  | ND |
| 4+55           | 37.6  | ND |
| 4+60           | 37.3  | ND |
| 4+70           | 24.0  | ND |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |

**COMMENTS:**

**SIGNED:** D.Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## SOIL-BENTONITE BACKFILL

### DAILY QC RESULTS

DATE: 8/29/12

SHIFT NO. 1

INSPECTOR: D. Guy

| SLUMP   | 1 per Batch                        |        | REQUIREMENT                        |
|---------|------------------------------------|--------|------------------------------------|
| STATION | TIME                               | RESULT | 3" TO 6"<br>(Prior to Backfilling) |
|         | 11:15                              | 3      |                                    |
|         | 14:38                              | 3      |                                    |
|         |                                    |        |                                    |
| DENSITY | PRIOR TO BACKFILLING - TWICE DAILY |        |                                    |

| STATION      | TIME                                  | RESULT | 110-125 pcf<br>20 PCF>Slurry Unit<br>Weight |
|--------------|---------------------------------------|--------|---------------------------------------------|
|              | 11:34                                 | 118    |                                             |
|              | 15:00                                 | 117.5  |                                             |
|              |                                       |        |                                             |
| PERMEABILITY | (Laboratory) EVERY 300 CY OF BACKFILL |        |                                             |

| STATION | SAMPLE NO. | <1X10 <sup>-7</sup> CM/SEC |
|---------|------------|----------------------------|
|         |            |                            |
|         |            |                            |
|         |            |                            |

| GRADATION |            | (Laboratory) EVERY 300 CY OF BACKFILL |
|-----------|------------|---------------------------------------|
| STATION   | SAMPLE NO. |                                       |
|           |            |                                       |
|           |            |                                       |

30% - 40%%<#200

| FINES   |            | (Laboratory) EVERY 100 CY OF BACKFILL |
|---------|------------|---------------------------------------|
| STATION | SAMPLE NO. |                                       |
|         |            | 30% - 40%%<#200                       |



Shepley's Hill Landfill Barrier wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## BENTONITE SLURRY

### DAILY QC RESULTS

DATE: 8/29/12

SHIFT NO. 1

INSPECTOR: D. Guy

|         |       | <u>VISCOSITY</u>     | <u>TWICE DAILY</u> |         |                  |
|---------|-------|----------------------|--------------------|---------|------------------|
|         | TIME  |                      | RESULT             | SECONDS | REQUIREMENT      |
| Initial | 8:30  |                      | 40.5               |         | >40              |
|         | 14:50 |                      | 39.1               |         |                  |
| Trench  | 9:10  | 3+30                 | 50.5               |         | >40              |
|         | 10:30 | 3+80                 | 52.1               |         |                  |
|         | 15:30 | 4+30                 | 54                 |         |                  |
|         |       | <u>DENSITY:</u>      | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            | PCF     |                  |
| Initial | 8:32  |                      | 64.2               |         | >63              |
|         | 14:53 |                      | 63.8               |         |                  |
| Trench  | 9:15  |                      | 87                 |         | 64 TO 90         |
|         | 10:34 |                      | 88.2               |         | (AT LEAST 20 PCF |
|         | 15:33 |                      | 89.2               |         | LIGHTER THAN BF) |
|         |       | <u>FILTRATE LOSS</u> | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            | CC      |                  |
| Initial | 9:05  |                      | 16.8               |         | <25 IN 30 MINS.  |
|         | 15:25 |                      | 17.2               |         |                  |
| Trench  | 9:50  |                      | 24.2               |         | <25 IN 30 MINS.  |
|         | 11:05 |                      | 24.8               |         |                  |
|         | 16:04 |                      | 25.5               |         |                  |
|         |       | <u>pH</u>            | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            |         |                  |
| Initial | 8:40  |                      | 7                  |         | 7-10             |
|         | 14:56 |                      | 7                  |         |                  |

COMMENTS / SPECIAL EVENTS:

SIGNED: \_\_\_\_\_ D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - START OF SHIFT**

**DAILY QC RESULTS**

DATE: 8/30/12                      SHIFT NO. 1                      INSPECTOR: D. Guy

| STATION<br>NO. | DEPTH |    |
|----------------|-------|----|
| 3+10           | 0.0   |    |
| 3+20           | 1.0   |    |
| 3+30           | 5.0   |    |
| 3+40           | 12.4  |    |
| 3+50           | 21.2  |    |
| 3+60           | 23.2  |    |
| 3+70           | 25.3  |    |
| 3+80           | 26.5  |    |
| 3+90           | 26.8  |    |
| 4+00           | 27.8  |    |
| 4+10           | 26.8  |    |
| 4+20           | 30.8  |    |
| 4+30           | 30.3  |    |
| 4+40           | 32.5  |    |
| 4+50           | 36.2  | ND |
| 4+55           | 37.3  | ND |
| 4+60           | 36.1  | ND |
| 4+70           | 24.8  | ND |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |

COMMENTS:

SIGNED: D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - END OF SHIFT**

**DAILY QC RESULTS**

**DATE:** 8/30/12

**SHIFT NO.** 1

**INSPECTOR:** D. Guy

| STATION<br>NO. | DEPTH |    |
|----------------|-------|----|
| 3+80           | 1.5   |    |
| 3+90           | 3.2   |    |
| 4+00           | 4.0   |    |
| 4+10           | 5.5   |    |
| 4+20           | 7.0   |    |
| 4+30           | 10.2  |    |
| 4+40           | 12.2  |    |
| 4+50           | 16.6  |    |
| 4+60           | 28.0  |    |
| 4+70           | 28.8  |    |
| 4+80           | 30.6  |    |
| 4+90           | 30.3  |    |
| 5+00           | 39.0  |    |
| 5+10           | 39.6  |    |
| 5+20           | 39.4  |    |
| 5+30           | 35.5  | ND |
| 5+40           | 13.2  | ND |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |

**COMMENTS:**

**SIGNED:** D.Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## SOIL-BENTONITE BACKFILL

### DAILY QC RESULTS

DATE: 8/30/12

SHIFT NO. I

INSPECTOR: D. Guy

#### SLUMP

1 per Batch

#### REQUIREMENT

STATION

TIME

RESULT

|  |
|--|
|  |
|  |
|  |

|       |
|-------|
| 10:30 |
| 15:45 |
|       |

|   |
|---|
| 3 |
| 3 |
|   |

INCHES

3" TO 6"  
(Prior to Backfilling)

#### DENSITY

PRIOR TO BACKFILLING - TWICE DAILY

STATION

TIME

RESULT

|  |
|--|
|  |
|  |

|       |
|-------|
| 10:46 |
| 16:00 |
|       |

|       |
|-------|
| 119.5 |
| 121.5 |
|       |

PCF

110-125 pcf  
20 PCF > Slurry Unit  
Weight

#### PERMEABILITY

(Laboratory) EVERY 300 CY OF BACKFILL

STATION

SAMPLE NO.

|  |
|--|
|  |
|  |

|  |
|--|
|  |
|  |

<  $1 \times 10^{-7}$  CM/SEC

#### GRADATION

(Laboratory) EVERY 300 CY OF BACKFILL

STATION

SAMPLE NO.

|  |
|--|
|  |
|  |

|  |
|--|
|  |
|  |

30% - 40% < #200

#### FINES

(Laboratory) EVERY 100 CY OF BACKFILL

STATION

SAMPLE NO.

|  |
|--|
|  |
|--|

|  |
|--|
|  |
|--|

30% - 40% < #200

Shepley's Hill Landfill Barrier wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## BENTONITE SLURRY

### DAILY QC RESULTS

DATE: 8/30/12

SHIFT NO. 1

INSPECTOR: D. Guy

|         |       | <u>VISCOSITY</u>     | <u>TWICE DAILY</u> |         |                  |
|---------|-------|----------------------|--------------------|---------|------------------|
|         | TIME  |                      | RESULT             | SECONDS | REQUIREMENT      |
| Initial | 8:15  |                      | 40.3               |         | >40              |
|         | 14:00 |                      | 40.9               |         |                  |
| Trench  | 10:20 | 4+50                 | 55.8               |         | >40              |
|         | 11:15 | 4+00                 | 53.7               |         |                  |
|         | 13:16 | 4+20                 | 54                 |         |                  |
|         |       | <u>DENSITY:</u>      | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            | PCF     |                  |
| Initial | 8:18  |                      | 64.2               |         | >63              |
|         | 14:03 |                      | 64.2               |         |                  |
| Trench  | 10:25 |                      | 91                 |         | 64 TO 90         |
|         | 11:19 |                      | 89                 |         | (AT LEAST 20 PCF |
|         | 13:20 |                      | 89.2               |         | LIGHTER THAN BF) |
|         |       | <u>FILTRATE LOSS</u> | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            | CC      |                  |
| Initial | 8:49  |                      | 17.4               |         | <25 IN 30 MINS.  |
|         | 14:35 |                      | 17.2               |         |                  |
| Trench  | 10:57 |                      | 24                 |         | <25 IN 30 MINS.  |
|         | 11:51 |                      | 25.2               |         |                  |
|         | 13:52 |                      | 24.8               |         |                  |
|         |       | <u>pH</u>            | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            |         |                  |
| Initial | 8:21  |                      | 7                  |         | 7-10             |
|         | 14:06 |                      | 7                  |         |                  |

COMMENTS / SPECIAL EVENTS:

SIGNED: \_\_\_\_\_ D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - START OF SHIFT**

**DAILY QC RESULTS**

DATE: 8/31/12                      SHIFT NO. 1                      INSPECTOR: D. Guy

| STATION<br>NO. | DEPTH |    |
|----------------|-------|----|
| 3+80           | 0.0   |    |
| 3+90           | 3.1   |    |
| 4+00           | 4.4   |    |
| 4+10           | 5.5   |    |
| 4+20           | 8.7   |    |
| 4+30           | 10.4  |    |
| 4+40           | 12.4  |    |
| 4+50           | 17.2  |    |
| 4+60           | 28.8  |    |
| 4+70           | 30.4  |    |
| 4+80           | 30.8  |    |
| 4+90           | 36.5  |    |
| 5+00           | 39.1  |    |
| 5+10           | 39.6  |    |
| 5+20           | 39.3  |    |
| 5+30           | 35.5  | ND |
| 5+40           | 12.9  | ND |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |

COMMENTS:

SIGNED: D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - END OF SHIFT**

**DAILY QC RESULTS**

**DATE:** 8/31/12

**SHIFT NO.** I

**INSPECTOR:** D. Guy

| STATION<br>NO. | DEPTH |    |
|----------------|-------|----|
| 4+40           | 0.0   |    |
| 4+50           | 3.2   |    |
| 4+60           | 8.0   |    |
| 4+70           | 27.5  |    |
| 4+80           | 27.0  |    |
| 4+90           | 29.8  |    |
| 5+00           | 37.2  |    |
| 5+10           | 37.5  |    |
| 5+20           | 39.7  |    |
| 5+30           | 38.8  |    |
| 5+40           | 38.0  |    |
| 5+50           | 39.5  |    |
| 5+60           | 39.5  |    |
| 5+70           | 5.0   | ND |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |

**COMMENTS:**

**SIGNED:** D.Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## SOIL-BENTONITE BACKFILL

### DAILY QC RESULTS

DATE: 8/31/12

SHIFT NO. I

INSPECTOR: D. Guy

| SLUMP   | I per Batch                        | REQUIREMENT |
|---------|------------------------------------|-------------|
| STATION | TIME                               | RESULT      |
|         | 11:15                              | 3.5 INCHES  |
|         | 13:18                              | 3           |
|         |                                    |             |
| DENSITY | PRIOR TO BACKFILLING - TWICE DAILY |             |

3" TO 6"  
(Prior to Backfilling)

|              |                                       |         |                             |
|--------------|---------------------------------------|---------|-----------------------------|
| STATION      | TIME                                  | RESULT  |                             |
|              | 11:19                                 | 119 PCF | 110-125 pcf                 |
|              | 13:21                                 | 118     | 20 PCF > Slurry Unit Weight |
|              |                                       |         |                             |
| PERMEABILITY | (Laboratory) EVERY 300 CY OF BACKFILL |         |                             |

|         |            |                             |
|---------|------------|-----------------------------|
| STATION | SAMPLE NO. |                             |
|         |            | < $1 \times 10^{-7}$ CM/SEC |
|         |            |                             |

|           |                                       |                  |
|-----------|---------------------------------------|------------------|
| GRADATION | (Laboratory) EVERY 300 CY OF BACKFILL |                  |
| STATION   | SAMPLE NO.                            |                  |
|           |                                       | 30% - 40% < #200 |
|           |                                       |                  |

|         |                                       |                  |
|---------|---------------------------------------|------------------|
| FINES   | (Laboratory) EVERY 100 CY OF BACKFILL |                  |
| STATION | SAMPLE NO.                            |                  |
|         |                                       | 30% - 40% < #200 |



Shepley's Hill Landfill Barrier wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## BENTONITE SLURRY

### DAILY QC RESULTS

DATE: 8/31/12

SHIFT NO. 1

INSPECTOR: D. Guy

|         |       | <u>VISCOSITY</u>     | <u>TWICE DAILY</u> |         |                                      |
|---------|-------|----------------------|--------------------|---------|--------------------------------------|
|         | TIME  |                      | RESULT             | SECONDS | REQUIREMENT                          |
| Initial | 10:08 |                      | 40.4               |         | >40                                  |
|         |       |                      |                    |         |                                      |
| Trench  | 8:50  | 4+90 @ 30'           | 59                 |         | >40                                  |
|         | 13:00 | 5+20 @ 15'           | 56                 |         |                                      |
|         |       |                      |                    |         |                                      |
|         |       | <u>DENSITY:</u>      | <u>TWICE DAILY</u> |         |                                      |
|         | TIME: |                      | RESULT:            | PCF     |                                      |
| Initial | 10:13 |                      | 64.2               |         | >63                                  |
|         |       |                      |                    |         |                                      |
| Trench  | 8:54  |                      | 91.5               |         | 64 TO 90                             |
|         | 13:04 |                      | 89.5               |         | (AT LEAST 20 PCF<br>LIGHTER THAN BF) |
|         |       |                      |                    |         |                                      |
|         |       | <u>FILTRATE LOSS</u> | <u>TWICE DAILY</u> |         |                                      |
|         | TIME: |                      | RESULT:            | CC      |                                      |
| Initial | 10:44 |                      | 18                 |         | <25 IN 30 MINS.                      |
|         |       |                      |                    |         |                                      |
| Trench  | 9:27  |                      | 26                 |         | <25 IN 30 MINS.                      |
|         | 13:36 |                      | 24                 |         |                                      |
|         |       |                      |                    |         |                                      |
|         |       | <u>pH</u>            | <u>TWICE DAILY</u> |         |                                      |
|         | TIME: |                      | RESULT:            |         |                                      |
| Initial | 10:15 |                      | 7                  |         | 7-10                                 |
|         |       |                      |                    |         |                                      |

COMMENTS / SPECIAL EVENTS:

SIGNED: \_\_\_\_\_ D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - START OF SHIFT**

**DAILY QC RESULTS**

DATE: 9/4/12                      SHIFT NO. 1                      INSPECTOR: D. Guy

| STATION<br>NO. | DEPTH |
|----------------|-------|
| 4+40           | 0.0   |
| 4+50           | 3.1   |
| 4+60           | 8.3   |
| 4+70           | 27.6  |
| 4+80           | 27.7  |
| 4+90           | 30.1  |
| 5+00           | 37.1  |
| 5+10           | 37.5  |
| 5+20           | 39.8  |
| 5+30           | 39.6  |
| 5+40           | 39.8  |
| 5+50           | 39.4  |
| 5+60           | 39.9  |
| 5+70           | 5.2   |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |

ND

COMMENTS:

SIGNED: D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - END OF SHIFT**

**DAILY QC RESULTS**

DATE: 9/4/12                      SHIFT NO. 1                      INSPECTOR: D. Guy

| STATION<br>NO. | DEPTH |    |
|----------------|-------|----|
| 4+90           | 0.0   |    |
| 5+00           | 5.0   |    |
| 5+10           | 6.2   |    |
| 5+20           | 12.9  |    |
| 5+30           | 24.7  |    |
| 5+40           | 29.5  |    |
| 5+50           | 29.0  |    |
| 5+60           | 29.5  |    |
| 5+70           | 29.0  |    |
| 5+80           | 31.3  |    |
| 5+90           | 36.5  |    |
| 6+00           | 36.6  |    |
| 6+10           | 36.6  |    |
| 6+20           | 36.5  | ND |
| 6+30           | 9.1   | ND |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |

COMMENTS:

SIGNED: D.Guy  
CONTRACTOR'S QC

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**SOIL-BENTONITE BACKFILL**

**DAILY QC RESULTS**

DATE: 9/4/12

SHIFT NO. 1

INSPECTOR: D. Guy

SLUMP

1 per Batch

REQUIREMENT

STATION

TIME

RESULT

10:20

15:49

4

3

INCHES

3" TO 6"

(Prior to Backfilling)

DENSITY

PRIOR TO BACKFILLING - TWICE DAILY

STATION

TIME

RESULT

11:19

16:21

123

121

PCF

110-125 pcf

20 PCF>Slurry Unit Weight

PERMEABILITY

(Laboratory) EVERY 300 CY OF BACKFILL

STATION

SAMPLE NO.

<1X10<sup>-7</sup> CM/SEC

GRADATION

(Laboratory) EVERY 300 CY OF BACKFILL

STATION

SAMPLE NO.

30% - 40%%<#200

FINES

(Laboratory) EVERY 100 CY OF BACKFILL

STATION

SAMPLE NO.

30% - 40%%<#200

Shepley's Hill Landfill Barrier wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## BENTONITE SLURRY

### DAILY QC RESULTS

DATE: 9/4/12

SHIFT NO. 1

INSPECTOR: D. Guy

| <u>VISCOSITY</u>     |       |                                        | <u>TWICE DAILY</u> |         |                 |
|----------------------|-------|----------------------------------------|--------------------|---------|-----------------|
|                      | TIME  |                                        | RESULT             |         | REQUIREMENT     |
| Initial              | 11:34 | 5+00 @ 25'<br>5+50 @ 35'<br>5+80 @ 15' | 39.5               | SECONDS | >40             |
|                      | 15:35 |                                        | 40.1               |         |                 |
| Trench               | 11:00 |                                        | 54.4               |         |                 |
|                      | 13:50 |                                        | 56                 |         |                 |
|                      | 16:15 |                                        | 64                 |         |                 |
| <u>DENSITY:</u>      |       |                                        | <u>TWICE DAILY</u> |         |                 |
|                      | TIME: |                                        | RESULT:            |         |                 |
| Initial              | 11:38 |                                        | 63.8               | PCF     | >63             |
|                      | 15:40 |                                        | 64                 |         |                 |
| Trench               | 11:04 |                                        | 87.2               |         |                 |
|                      | 13:53 |                                        | 89                 |         |                 |
|                      | 16:21 |                                        | 91.5               |         |                 |
| <u>FILTRATE LOSS</u> |       |                                        | <u>TWICE DAILY</u> |         |                 |
|                      | TIME: |                                        | RESULT:            |         |                 |
| Initial              | 12:09 |                                        | 18.2               | CC      | <25 IN 30 MINS. |
|                      | 16:11 |                                        | 18                 |         |                 |
| Trench               | 11:36 |                                        | 22                 |         |                 |
|                      | 14:25 |                                        | 23                 |         |                 |
|                      | 16:52 |                                        | 26                 |         |                 |
| <u>pH</u>            |       |                                        | <u>TWICE DAILY</u> |         |                 |
|                      | TIME: |                                        | RESULT:            |         |                 |
| Initial              | 11:35 |                                        | 7                  |         | 7-10            |
|                      | 15:37 |                                        | 7                  |         |                 |

COMMENTS / SPECIAL EVENTS:

SIGNED: \_\_\_\_\_ D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - START OF SHIFT**

**DAILY QC RESULTS**

DATE: 9/5/12                      SHIFT NO. 1                      INSPECTOR: D. Guy

| STATION<br>NO. | DEPTH |    |
|----------------|-------|----|
| 4+90           | 0.0   |    |
| 5+00           | 4.8   |    |
| 5+10           | 7.1   |    |
| 5+20           | 14.8  |    |
| 5+30           | 26.3  |    |
| 5+40           | 29.0  |    |
| 5+50           | 29.1  |    |
| 5+60           | 30.0  |    |
| 5+70           | 29.5  |    |
| 5+80           | 33.6  |    |
| 5+90           | 36.6  |    |
| 6+00           | 36.7  |    |
| 6+10           | 36.4  |    |
| 6+20           | 36.3  | ND |
| 6+30           | 9.1   | ND |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |

COMMENTS:

SIGNED: D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - END OF SHIFT**

**DAILY QC RESULTS**

DATE: 9/5/12                      SHIFT NO. 1                      INSPECTOR: D. Guy

| STATION NO. | DEPTH |    |
|-------------|-------|----|
| 5+00        | 0.0   |    |
| 5+10        | 2.4   |    |
| 5+20        | 6.8   |    |
| 5+30        | 19.7  |    |
| 5+40        | 22.5  |    |
| 5+50        | 24.2  |    |
| 5+60        | 25.2  |    |
| 5+70        | 30.0  |    |
| 5+80        | 29.6  |    |
| 5+90        | 29.3  |    |
| 6+00        | 30.2  |    |
| 6+10        | 34.5  |    |
| 6+20        | 37.7  |    |
| 6+30        | 36.9  | ND |
| 6+40        | 39.0  | ND |
| 6+50        | 4.4   | ND |
|             |       |    |
|             |       |    |
|             |       |    |
|             |       |    |
|             |       |    |
|             |       |    |
|             |       |    |

COMMENTS:

SIGNED: D.Guy  
CONTRACTOR'S QC

# MORETRENCH

100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## SOIL-BENTONITE BACKFILL

### DAILY QC RESULTS

DATE: 9/5/12

SHIFT NO. 1

INSPECTOR: D. Guy

#### SLUMP

1 per Batch

#### REQUIREMENT

STATION

TIME

RESULT

|  |
|--|
|  |
|  |
|  |

|       |
|-------|
| 10:40 |
|       |
|       |

|   |
|---|
| 3 |
|   |
|   |

INCHES

3" TO 6"  
(Prior to Backfilling)

#### DENSITY

PRIOR TO BACKFILLING - TWICE DAILY

STATION

TIME

RESULT

|  |
|--|
|  |
|  |

|       |
|-------|
| 11:19 |
|       |
|       |

|     |
|-----|
| 121 |
|     |
|     |

PCF

110-125 pcf  
20 PCF > Slurry Unit  
Weight

#### PERMEABILITY

(Laboratory) EVERY 300 CY OF BACKFILL

STATION

SAMPLE NO.

|  |
|--|
|  |
|  |

|  |
|--|
|  |
|  |

<  $1 \times 10^{-7}$  CM/SEC

#### GRADATION

(Laboratory) EVERY 300 CY OF BACKFILL

STATION

SAMPLE NO.

|  |
|--|
|  |
|  |

|  |
|--|
|  |
|  |

30% - 40% < #200

#### FINES

(Laboratory) EVERY 100 CY OF BACKFILL

STATION

SAMPLE NO.

|  |
|--|
|  |
|--|

|  |
|--|
|  |
|--|

30% - 40% < #200



Shepley's Hill Landfill Barrier wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## BENTONITE SLURRY

### DAILY QC RESULTS

DATE: 9/5/12

SHIFT NO. 1

INSPECTOR: D. Guy

|         |       | <u>VISCOSITY</u>     | <u>TWICE DAILY</u> |         |                                      |
|---------|-------|----------------------|--------------------|---------|--------------------------------------|
|         | TIME  |                      | RESULT             |         | REQUIREMENT                          |
| Initial | 9:50  | 5+50 @ 25'           | 40.1               | SECONDS | >40                                  |
|         |       |                      |                    |         |                                      |
| Trench  | 14:15 |                      | 55.3               |         | >40                                  |
|         |       |                      |                    |         |                                      |
|         |       | <u>DENSITY:</u>      | <u>TWICE DAILY</u> |         |                                      |
|         | TIME: |                      | RESULT:            |         |                                      |
| Initial | 9:54  |                      | 64                 | PCF     | >63                                  |
|         |       |                      |                    |         |                                      |
| Trench  | 14:18 |                      | 89                 |         | 64 TO 90                             |
|         |       |                      |                    |         | (AT LEAST 20 PCF<br>LIGHTER THAN BF) |
|         |       | <u>FILTRATE LOSS</u> | <u>TWICE DAILY</u> |         |                                      |
|         | TIME: |                      | RESULT:            |         |                                      |
| Initial | 10:27 |                      | 17.8               | CC      | <25 IN 30 MINS.                      |
|         |       |                      |                    |         |                                      |
| Trench  | 14:50 |                      | 23.6               |         | <25 IN 30 MINS.                      |
|         |       |                      |                    |         |                                      |
|         |       | <u>pH</u>            | <u>TWICE DAILY</u> |         |                                      |
|         | TIME: |                      | RESULT:            |         |                                      |
| Initial | 10:08 |                      | 7                  |         | 7-10                                 |
|         |       |                      |                    |         |                                      |

#### COMMENTS / SPECIAL EVENTS:

\*\* Worked 1/4 Shift (374 Broke down)

SIGNED: \_\_\_\_\_ D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - START OF SHIFT**

**DAILY QC RESULTS**

DATE: 9/6/12                      SHIFT NO. 1                      INSPECTOR: D. Guy

| STATION<br>NO. | DEPTH |    |
|----------------|-------|----|
| 5+00           | 0.0   |    |
| 5+10           | 2.5   |    |
| 5+20           | 8.5   |    |
| 5+30           | 21.2  |    |
| 5+40           | 23.3  |    |
| 5+50           | 25.0  |    |
| 5+60           | 25.2  |    |
| 5+70           | 30.7  |    |
| 5+80           | 30.6  |    |
| 5+90           | 29.2  |    |
| 6+00           | 35.5  |    |
| 6+10           | 35.5  |    |
| 6+20           | 37.6  |    |
| 6+30           | 37.4  | ND |
| 6+40           | 22.4  | ND |
| 6+50           | 4.5   | ND |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |

COMMENTS:

SIGNED: D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - END OF SHIFT**

**DAILY QC RESULTS**

DATE: 9/6/12                      SHIFT NO. 1                      INSPECTOR: D. Guy

| STATION<br>NO. | DEPTH |    |
|----------------|-------|----|
| 5+40           | 0.0   |    |
| 5+50           | 5.5   |    |
| 5+60           | 11.6  |    |
| 5+70           | 15.0  |    |
| 5+80           | 21.6  |    |
| 5+90           | 27.0  |    |
| 6+00           | 28.7  |    |
| 6+10           | 30.8  |    |
| 6+20           | 31.4  |    |
| 6+30           | 33.3  |    |
| 6+40           | 34.0  |    |
| 6+50           | 36.8  |    |
| 6+60           | 37.6  |    |
| 6+70           | 41.0  | ND |
| 6+80           | 43.4  | ND |
| 6+90           | 6.3   | ND |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |

COMMENTS:

SIGNED: D.Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## SOIL-BENTONITE BACKFILL

### DAILY QC RESULTS

DATE: 9/6/12

SHIFT NO. 1

INSPECTOR: D. Guy

| SLUMP   | 1 per Batch                        |        | REQUIREMENT                        |
|---------|------------------------------------|--------|------------------------------------|
| STATION | TIME                               | RESULT | 3" TO 6"<br>(Prior to Backfilling) |
|         | 11:00                              | 3      |                                    |
|         | 13:00                              | 3.5    |                                    |
|         |                                    |        |                                    |
| DENSITY | PRIOR TO BACKFILLING - TWICE DAILY |        |                                    |

| STATION      | TIME                                  | RESULT | 110-125 pcf<br>20 PCF>Slurry Unit<br>Weight |
|--------------|---------------------------------------|--------|---------------------------------------------|
|              | 11:19                                 | 118    |                                             |
|              | 13:15                                 | 120    |                                             |
|              |                                       |        |                                             |
| PERMEABILITY | (Laboratory) EVERY 300 CY OF BACKFILL |        |                                             |

| STATION | SAMPLE NO. | <1X10 <sup>-7</sup> CM/SEC |
|---------|------------|----------------------------|
|         |            |                            |
|         |            |                            |
|         |            |                            |

| GRADATION |            | (Laboratory) EVERY 300 CY OF BACKFILL |
|-----------|------------|---------------------------------------|
| STATION   | SAMPLE NO. |                                       |
|           |            |                                       |
|           |            |                                       |

30% - 40%%<#200

| FINES   |            | (Laboratory) EVERY 100 CY OF BACKFILL |
|---------|------------|---------------------------------------|
| STATION | SAMPLE NO. |                                       |
|         |            | 30% - 40%%<#200                       |

Shepley's Hill Landfill Barrier wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## BENTONITE SLURRY

### DAILY QC RESULTS

DATE: 9/6/12

SHIFT NO. 1

INSPECTOR: D. Guy

|         |       | <u>VISCOSITY</u>     | <u>TWICE DAILY</u> |         |                  |
|---------|-------|----------------------|--------------------|---------|------------------|
|         | TIME  |                      | RESULT             | SECONDS | REQUIREMENT      |
| Initial | 8:50  | 5+50 @ 25'           | 43.2               |         | >40              |
|         | 14:00 |                      | 42.6               |         |                  |
| Trench  | 10:20 |                      | 54.9               |         | >40              |
|         | 12:36 |                      | 53.7               |         |                  |
|         | 15:00 |                      | 55.8               |         |                  |
|         |       | <u>DENSITY:</u>      | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            | PCF     |                  |
| Initial | 8:54  |                      | 64.4               |         | >63              |
|         | 14:06 |                      | 64.2               |         |                  |
| Trench  | 10:23 |                      | 89.5               |         | 64 TO 90         |
|         | 12:40 |                      | 88                 |         | (AT LEAST 20 PCF |
|         | 15:10 |                      | 89.5               |         | LIGHTER THAN BF) |
|         |       | <u>FILTRATE LOSS</u> | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            | CC      |                  |
| Initial | 9:27  |                      | 17.4               |         | <25 IN 30 MINS.  |
|         | 14:38 |                      | 16.8               |         |                  |
| Trench  | 10:54 |                      | 24.6               |         | <25 IN 30 MINS.  |
|         | 13:11 |                      | 24.2               |         |                  |
|         | 15:42 |                      | 25.6               |         |                  |
|         |       | <u>pH</u>            | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            |         |                  |
| Initial | 8:56  |                      | 7                  |         | 7-10             |
|         | 14:04 |                      | 7                  |         |                  |

#### COMMENTS / SPECIAL EVENTS:

\*\* Worked 1/4 Shift (374 Broke down)

SIGNED: \_\_\_\_\_ D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - START OF SHIFT**

**DAILY QC RESULTS**

DATE: 9/7/12                      SHIFT NO. 1                      INSPECTOR: D. Guy

| STATION NO. | DEPTH |
|-------------|-------|
| 5+40        | 0.0   |
| 5+50        | 5.3   |
| 5+60        | 11.8  |
| 5+70        | 17.5  |
| 5+80        | 23.9  |
| 5+90        | 29.0  |
| 6+00        | 29.1  |
| 6+10        | 30.6  |
| 6+20        | 32.4  |
| 6+30        | 33.4  |
| 6+40        | 37.2  |
| 6+50        | 38.3  |
| 6+60        | 37.8  |
| 6+70        | 42.7  |
|             |       |
|             |       |
|             |       |
|             |       |
|             |       |
|             |       |
|             |       |
|             |       |
|             |       |

ND

COMMENTS:

SIGNED: D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - END OF SHIFT**

**DAILY QC RESULTS**

DATE: 9/7/12                      SHIFT NO. 1                      INSPECTOR: D. Guy

| STATION<br>NO. | DEPTH |    |
|----------------|-------|----|
| 5+80           | 0.0   |    |
| 5+90           | 4.8   |    |
| 6+00           | 20.0  |    |
| 6+10           | 19.9  |    |
| 6+20           | 23.6  |    |
| 6+30           | 24.4  |    |
| 6+40           | 28.0  |    |
| 6+50           | 27.7  |    |
| 6+60           | 28.9  |    |
| 6+70           | 34.9  |    |
| 6+80           | 37.5  |    |
| 6+90           | 40.3  |    |
| 7+00           | 40.0  |    |
| 7+10           | 42.8  |    |
| 7+20           | 43.0  | ND |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |

COMMENTS:

SIGNED: D.Guy  
CONTRACTOR'S QC



Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**SOIL-BENTONITE BACKFILL**

**DAILY QC RESULTS**

|                     |                   |                                              |                            |                                          |  |
|---------------------|-------------------|----------------------------------------------|----------------------------|------------------------------------------|--|
| <b>DATE:</b> 9/7/12 |                   | <b>SHIFT NO.</b> I                           |                            | <b>INSPECTOR:</b> D. Guy                 |  |
| <b>SLUMP</b>        |                   | I per Batch                                  |                            | <b>REQUIREMENT</b>                       |  |
| <b>STATION</b>      | <b>TIME</b>       | <b>RESULT</b>                                |                            |                                          |  |
| <div></div>         | <div>13:00</div>  | <div>3.5</div>                               | INCHES                     | 3" TO 6"<br>(Prior to Backfilling)       |  |
| <div></div>         | <div>13:30</div>  | <div>3</div>                                 |                            |                                          |  |
| <div></div>         |                   |                                              |                            |                                          |  |
| <b>DENSITY</b>      |                   | <b>PRIOR TO BACKFILLING - TWICE DAILY</b>    |                            |                                          |  |
| <b>STATION</b>      | <b>TIME</b>       | <b>RESULT</b>                                |                            |                                          |  |
| <div></div>         | <div>13:10</div>  | <div>118</div>                               | PCF                        | 110-125 pcf<br>20 PCF>Slurry Unit Weight |  |
| <div></div>         | <div>13:45</div>  | <div>120</div>                               |                            |                                          |  |
| <div></div>         |                   |                                              |                            |                                          |  |
| <b>PERMEABILITY</b> |                   | <b>(Laboratory) EVERY 300 CY OF BACKFILL</b> |                            |                                          |  |
| <b>STATION</b>      | <b>SAMPLE NO.</b> |                                              |                            |                                          |  |
| <div></div>         | <div></div>       |                                              | <1X10 <sup>-7</sup> CM/SEC |                                          |  |
| <div></div>         | <div></div>       |                                              |                            |                                          |  |
| <b>GRADATION</b>    |                   | <b>(Laboratory) EVERY 300 CY OF BACKFILL</b> |                            |                                          |  |
| <b>STATION</b>      | <b>SAMPLE NO.</b> |                                              |                            |                                          |  |
| <div></div>         | <div></div>       |                                              | 30% - 40%%<#200            |                                          |  |
| <div></div>         | <div></div>       |                                              |                            |                                          |  |
| <b>FINES</b>        |                   | <b>(Laboratory) EVERY 100 CY OF BACKFILL</b> |                            |                                          |  |
| <b>STATION</b>      | <b>SAMPLE NO.</b> |                                              |                            |                                          |  |
| <div></div>         | <div></div>       |                                              | 30% - 40%%<#200            |                                          |  |



Shepley's Hill Landfill Barrier wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## BENTONITE SLURRY

### DAILY QC RESULTS

DATE: 9/7/12

SHIFT NO. 1

INSPECTOR: D. Guy

|         |       | <u>VISCOSITY</u>     | <u>TWICE DAILY</u> |         |                                      |
|---------|-------|----------------------|--------------------|---------|--------------------------------------|
|         | TIME  |                      | RESULT             | SECONDS | REQUIREMENT                          |
| Initial | 11:26 | 5+50 @ 25'           | 42.4               |         | >40                                  |
|         |       |                      |                    |         |                                      |
| Trench  | 12:40 |                      | 53.6               |         | >40                                  |
|         | 14:30 |                      | 54.9               |         |                                      |
|         |       |                      |                    |         |                                      |
|         |       | <u>DENSITY:</u>      | <u>TWICE DAILY</u> |         |                                      |
|         | TIME: |                      | RESULT:            | PCF     |                                      |
| Initial | 11:30 |                      | 64                 |         | >63                                  |
|         |       |                      |                    |         |                                      |
| Trench  | 12:45 |                      | 88                 |         | 64 TO 90                             |
|         | 14:34 |                      | 91                 |         | (AT LEAST 20 PCF<br>LIGHTER THAN BF) |
|         |       |                      |                    |         |                                      |
|         |       | <u>FILTRATE LOSS</u> | <u>TWICE DAILY</u> |         |                                      |
|         | TIME: |                      | RESULT:            | CC      |                                      |
| Initial | 12:00 |                      | 16.8               |         | <25 IN 30 MINS.                      |
|         |       |                      |                    |         |                                      |
| Trench  | 13:16 |                      | 25.5               |         | <25 IN 30 MINS.                      |
|         | 15:04 |                      | 26                 |         |                                      |
|         |       |                      |                    |         |                                      |
|         |       | <u>pH</u>            | <u>TWICE DAILY</u> |         |                                      |
|         | TIME: |                      | RESULT:            |         |                                      |
| Initial | 11:34 |                      | 7                  |         | 7-10                                 |
|         |       |                      |                    |         |                                      |

#### COMMENTS / SPECIAL EVENTS:

Worked Short Shift

SIGNED: \_\_\_\_\_ D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - START OF SHIFT**

**DAILY QC RESULTS**

DATE: 9/10/12                      SHIFT NO. 1                      INSPECTOR: D. Guy

| STATION<br>NO. | DEPTH |
|----------------|-------|
| 5+80           | 0.0   |
| 5+90           | 12.5  |
| 6+00           | 23.6  |
| 6+10           | 21.7  |
| 6+20           | 23.7  |
| 6+30           | 24.4  |
| 6+40           | 28.4  |
| 6+50           | 28.1  |
| 6+60           | 30.1  |
| 6+70           | 36.6  |
| 6+80           | 38.4  |
| 6+90           | 40.5  |
| 7+00           | 40.0  |
| 7+10           | 42.8  |
| 7+20           | 42.9  |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |

ND

COMMENTS:

SIGNED: D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - END OF SHIFT**

**DAILY QC RESULTS**

**DATE:** 9/10/12

**SHIFT NO.** I

**INSPECTOR:** D. Guy

| STATION<br>NO. | DEPTH |    |
|----------------|-------|----|
| 6+60           | 0.0   |    |
| 6+70           | 12.4  |    |
| 6+80           | 18.4  |    |
| 6+90           | 24.5  |    |
| 7+00           | 25.8  |    |
| 7+10           | 27.9  |    |
| 7+20           | 27.2  |    |
| 7+30           | 31.1  |    |
| 7+40           | 34.1  |    |
| 7+50           | 35.2  |    |
| 7+60           | 37.5  |    |
| 7+70           | 38.0  |    |
| 7+80           | 38.6  |    |
| 7+90           | 32.2  | ND |
| 8+00           | 11.0  | ND |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |
|                |       |    |

**COMMENTS:**

**SIGNED:** D.Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## SOIL-BENTONITE BACKFILL

### DAILY QC RESULTS

DATE: 9/10/12

SHIFT NO. 1

INSPECTOR: D. Guy

| SLUMP   | 1 per Batch                        |        | REQUIREMENT                        |
|---------|------------------------------------|--------|------------------------------------|
| STATION | TIME                               | RESULT | 3" TO 6"<br>(Prior to Backfilling) |
|         | 11:00                              | 3      |                                    |
|         | 13:13                              | 3      |                                    |
|         | 15:12                              | 3      |                                    |
| DENSITY | PRIOR TO BACKFILLING - TWICE DAILY |        |                                    |

| STATION      | TIME                                  | RESULT | 110-125 pcf<br>20 PCF>Slurry Unit<br>Weight |
|--------------|---------------------------------------|--------|---------------------------------------------|
|              | 11:14                                 | 119.5  |                                             |
|              | 13:45                                 | 119    |                                             |
|              | 15:32                                 | 119.5  |                                             |
| PERMEABILITY | (Laboratory) EVERY 300 CY OF BACKFILL |        |                                             |

| STATION | SAMPLE NO. | <1X10 <sup>-7</sup> CM/SEC |
|---------|------------|----------------------------|
|         |            |                            |

| GRADATION | (Laboratory) EVERY 300 CY OF BACKFILL |  | 30% - 40%%<#200 |
|-----------|---------------------------------------|--|-----------------|
| STATION   | SAMPLE NO.                            |  |                 |
|           |                                       |  |                 |

| FINES   | (Laboratory) EVERY 100 CY OF BACKFILL |  | 30% - 40%%<#200 |
|---------|---------------------------------------|--|-----------------|
| STATION | SAMPLE NO.                            |  |                 |
|         |                                       |  |                 |

Shepley's Hill Landfill Barrier wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## BENTONITE SLURRY

### DAILY QC RESULTS

DATE: 9/10/12

SHIFT NO. 1

INSPECTOR: D. Guy

|         |       | <u>VISCOSITY</u>     | <u>TWICE DAILY</u> |         |                  |
|---------|-------|----------------------|--------------------|---------|------------------|
|         | TIME  |                      | RESULT             | SECONDS | REQUIREMENT      |
| Initial | 9:55  |                      | 40.1               |         | >40              |
|         | 13:35 |                      | 39.6               |         |                  |
| Trench  | 10:30 | 6+80 @ 30'           | 49.7               |         | >40              |
|         | 12:05 | 6+40 @ 15'           | 51.2               |         |                  |
|         | 14:10 | 7+40 @ 15'           | 59                 |         |                  |
|         |       | <u>DENSITY:</u>      | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            | PCF     |                  |
| Initial | 10:00 |                      | 64                 |         | >63              |
|         | 13:38 |                      | 64                 |         |                  |
| Trench  | 10:34 |                      | 88                 |         | 64 TO 90         |
|         | 12:10 |                      | 88.2               |         | (AT LEAST 20 PCF |
|         | 14:16 |                      | 96.0               |         | LIGHTER THAN BF) |
|         |       | <u>FILTRATE LOSS</u> | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            | CC      |                  |
| Initial | 10:34 |                      | 16.7               |         | <25 IN 30 MINS.  |
|         | 14:08 |                      | 16.8               |         |                  |
| Trench  | 11:05 |                      | 25.4               |         | <25 IN 30 MINS.  |
|         | 12:43 |                      | 25.4               |         |                  |
|         | 14:49 |                      | 26.2               |         |                  |
|         |       | <u>pH</u>            | <u>TWICE DAILY</u> |         |                  |
|         | TIME: |                      | RESULT:            |         |                  |
| Initial | 10:02 |                      | 7                  |         | 7-10             |
|         | 13:45 |                      | 7                  |         |                  |

COMMENTS / SPECIAL EVENTS:

SIGNED: \_\_\_\_\_ D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - START OF SHIFT**

**DAILY QC RESULTS**

**DATE:** 9/11/12

**SHIFT NO.** 1

**INSPECTOR:** D. Guy

| STATION<br>NO. | DEPTH |
|----------------|-------|
| 6+60           | 0.0   |
| 6+70           | 13.8  |
| 6+80           | 19.4  |
| 6+90           | 27.0  |
| 7+00           | 26.0  |
| 7+10           | 29.8  |
| 7+20           | 28.0  |
| 7+30           | 30.9  |
| 7+40           | 36.8  |
| 7+50           | 36.4  |
| 7+60           | 38.0  |
| 7+70           | 38.2  |
| 7+80           | 38.4  |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |
|                |       |

**COMMENTS:**

**SIGNED:** D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

**BACKFILL SLOPE - END OF SHIFT**

**DAILY QC RESULTS**

DATE: 9/11/12                      SHIFT NO. 1                      INSPECTOR: D. Guy

| STATION NO. | DEPTH |    |
|-------------|-------|----|
| 7+00        | 0.0   |    |
| 7+10        | 4.0   |    |
| 7+20        | 14.2  |    |
| 7+30        | 22.5  |    |
| 7+40        | 22.7  |    |
| 7+50        | 25.7  |    |
| 7+60        | 28.3  |    |
| 7+70        | 29.2  |    |
| 7+80        | 30.3  |    |
| 7+90        | 34.0  |    |
| 8+00        | 34.5  |    |
| 8+10        | 37.0  |    |
| 8+20        | 39.1  |    |
| 8+30        |       | ND |
| 8+40        | 35.2  | ND |
|             |       |    |
|             |       |    |
|             |       |    |
|             |       |    |
|             |       |    |
|             |       |    |
|             |       |    |
|             |       |    |
|             |       |    |

COMMENTS:

SIGNED: D.Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## SOIL-BENTONITE BACKFILL

### DAILY QC RESULTS

DATE: 9/11/12

SHIFT NO. 1

INSPECTOR: D. Guy

| SLUMP   | 1 per Batch                        |        | REQUIREMENT                        |
|---------|------------------------------------|--------|------------------------------------|
| STATION | TIME                               | RESULT | 3" TO 6"<br>(Prior to Backfilling) |
|         | 10:15                              | 3      |                                    |
|         | 13:00                              | 3      |                                    |
|         | 15:10                              | 3      |                                    |
| DENSITY | PRIOR TO BACKFILLING - TWICE DAILY |        |                                    |

| STATION      | TIME                                  | RESULT | 110-125 pcf<br>20 PCF>Slurry Unit<br>Weight |
|--------------|---------------------------------------|--------|---------------------------------------------|
|              | 10:45                                 | 118    |                                             |
|              | 13:32                                 | 119    |                                             |
|              | 15:34                                 | 118.5  |                                             |
| PERMEABILITY | (Laboratory) EVERY 300 CY OF BACKFILL |        |                                             |

| STATION | SAMPLE NO. | <1X10 <sup>-7</sup> CM/SEC |
|---------|------------|----------------------------|
|         |            |                            |

| GRADATION | (Laboratory) EVERY 300 CY OF BACKFILL |  | 30% - 40%%<#200 |
|-----------|---------------------------------------|--|-----------------|
| STATION   | SAMPLE NO.                            |  |                 |
|           |                                       |  |                 |

| FINES   | (Laboratory) EVERY 100 CY OF BACKFILL |  | 30% - 40%%<#200 |
|---------|---------------------------------------|--|-----------------|
| STATION | SAMPLE NO.                            |  |                 |
|         |                                       |  |                 |



Shepley's Hill Landfill Barrier wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## BENTONITE SLURRY

### DAILY QC RESULTS

DATE: 9/11/12

SHIFT NO. 1

INSPECTOR: D. Guy

|         |       | <u>VISCOSITY</u>     | <u>TWICE DAILY</u> |         |                                      |
|---------|-------|----------------------|--------------------|---------|--------------------------------------|
|         | TIME  |                      | RESULT             | SECONDS | REQUIREMENT                          |
| Initial | 12:35 |                      | 40.3               |         | >40                                  |
|         |       |                      |                    |         |                                      |
| Trench  | 11:15 | 7+20 @ 15'           | 53.6               |         | >40                                  |
|         | 14:30 | 7+70 @ 30'           | 55.8               |         |                                      |
|         |       |                      |                    |         |                                      |
|         |       | <u>DENSITY:</u>      | <u>TWICE DAILY</u> |         |                                      |
|         | TIME: |                      | RESULT:            | PCF     |                                      |
| Initial | 12:40 |                      | 64                 |         | >63                                  |
|         |       |                      |                    |         |                                      |
| Trench  | 11:21 |                      | 89                 |         | 64 TO 90                             |
|         | 14:33 |                      | 91                 |         | (AT LEAST 20 PCF<br>LIGHTER THAN BF) |
|         |       |                      |                    |         |                                      |
|         |       | <u>FILTRATE LOSS</u> | <u>TWICE DAILY</u> |         |                                      |
|         | TIME: |                      | RESULT:            | CC      |                                      |
| Initial | 13:12 |                      | 17.1               |         | <25 IN 30 MINS.                      |
|         |       |                      |                    |         |                                      |
| Trench  | 11:53 |                      | 25.4               |         | <25 IN 30 MINS.                      |
|         | 15:04 |                      | 25.6               |         |                                      |
|         |       |                      |                    |         |                                      |
|         |       | <u>pH</u>            | <u>TWICE DAILY</u> |         |                                      |
|         | TIME: |                      | RESULT:            |         |                                      |
| Initial | 12:43 |                      | 7                  |         | 7-10                                 |
|         |       |                      |                    |         |                                      |

#### COMMENTS / SPECIAL EVENTS:

Short Shift

SIGNED: \_\_\_\_\_ D. Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## SOIL-BENTONITE BACKFILL

### DAILY QC RESULTS

DATE: 9/12/12

SHIFT NO. 1

INSPECTOR: D. Guy

| STATION | TIME | RESULT                             | REQUIREMENT                        |
|---------|------|------------------------------------|------------------------------------|
|         | 1:00 | 3                                  | 3" TO 6"<br>(Prior to Backfilling) |
|         | 1:30 | 3                                  |                                    |
|         |      |                                    |                                    |
| SLUMP   |      | 1 per Batch                        |                                    |
| DENSITY |      | PRIOR TO BACKFILLING - TWICE DAILY |                                    |

| STATION      | TIME | RESULT                                | REQUIREMENT                                 |
|--------------|------|---------------------------------------|---------------------------------------------|
|              | 1:18 | 117.5                                 | 110-125 pcf<br>20 PCF>Slurry Unit<br>Weight |
|              | 1:35 | 118.5                                 |                                             |
|              |      |                                       |                                             |
| PERMEABILITY |      | (Laboratory) EVERY 300 CY OF BACKFILL |                                             |

| STATION | SAMPLE NO. | REQUIREMENT                |
|---------|------------|----------------------------|
|         |            | <1X10 <sup>-7</sup> CM/SEC |
|         |            |                            |

| STATION   | SAMPLE NO. | REQUIREMENT                           |
|-----------|------------|---------------------------------------|
|           |            | 30% - 40%%<#200                       |
|           |            |                                       |
| GRADATION |            | (Laboratory) EVERY 300 CY OF BACKFILL |

| STATION | SAMPLE NO. | REQUIREMENT                           |
|---------|------------|---------------------------------------|
|         |            | 30% - 40%%<#200                       |
|         |            |                                       |
| FINES   |            | (Laboratory) EVERY 100 CY OF BACKFILL |



**BACKFILL SLOPE - START OF SHIFT**

## DAILY QC RESULTS

**INSPECTOR: D. Guy**

**COMMENTS:**

**SIGNED:** D. Guy  
**CONTRACTOR'S QC**



### BACKFILL SLOPE - END OF SHIFT

## DAILY QC RESULTS

**INSPECTOR: D. Guy**

[illegible]

**COMMENTS:**

**SIGNED:** D.Guy  
CONTRACTOR'S QC



100 Stickle Avenue, Rockaway, NJ 07866-3146

Shepley's Hill Barrier Wall  
Soil-Bentonite Wall  
Ft. Devens, MA

## SOIL-BENTONITE BACKFILL

### DAILY QC RESULTS

DATE: 9/13/12

SHIFT NO. 1

INSPECTOR: D. Guy

#### SLUMP

1 per Batch

#### REQUIREMENT

STATION

TIME

RESULT

|  |
|--|
|  |
|  |
|  |

|       |
|-------|
| 9:00  |
| 11:30 |
| 2:13  |

|     |
|-----|
| 3.5 |
| 3   |
| 3   |

INCHES

3" TO 6"  
(Prior to Backfilling)

#### DENSITY

PRIOR TO BACKFILLING - TWICE DAILY

STATION

TIME

RESULT

|  |
|--|
|  |
|  |

|       |
|-------|
| 9:20  |
| 11:35 |
| 2:35  |

|       |
|-------|
| 118.5 |
| 118   |
| 117   |

PCF

110-125 pcf  
20 PCF > Slurry Unit  
Weight

#### PERMEABILITY

(Laboratory) EVERY 300 CY OF BACKFILL

STATION

SAMPLE NO.

|  |
|--|
|  |
|  |

|  |
|--|
|  |
|  |

<  $1 \times 10^{-7}$  CM/SEC

#### GRADATION

(Laboratory) EVERY 300 CY OF BACKFILL

STATION

SAMPLE NO.

|  |
|--|
|  |
|  |

|  |
|--|
|  |
|  |

30% - 40% < #200

#### FINES

(Laboratory) EVERY 100 CY OF BACKFILL

STATION

SAMPLE NO.

|  |
|--|
|  |
|--|

|  |
|--|
|  |
|--|

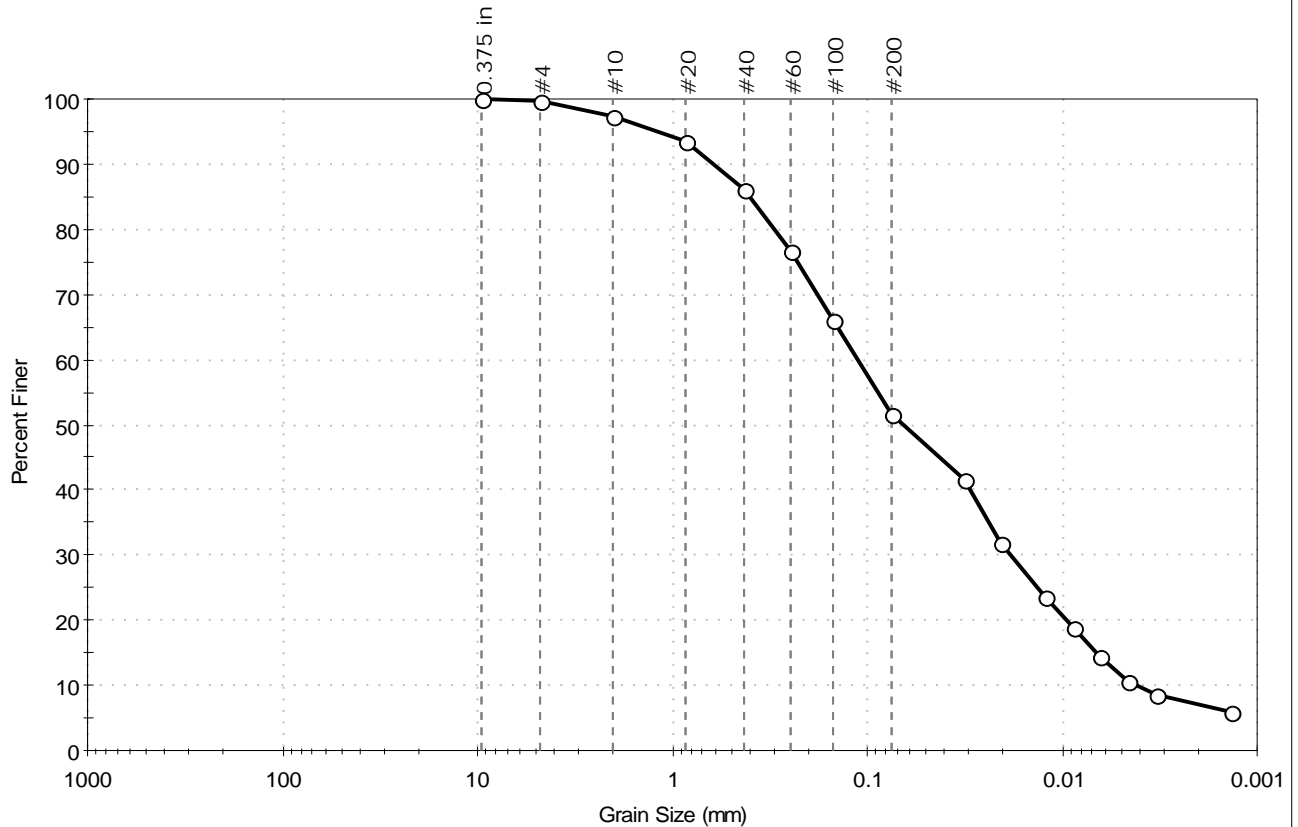
30% - 40% < #200

**SIGNED: \_\_\_\_\_ D. Guy**  
**CONTRACTOR'S QC**



|                                                                  |                       |                 |
|------------------------------------------------------------------|-----------------------|-----------------|
| Client: Moretrench American Corp.                                | Project No: GTX-11659 |                 |
| Project: Shepley Landfill                                        |                       |                 |
| Location: Devens, MA                                             |                       |                 |
| Boring ID: ---                                                   | Sample Type: bag      | Tested By: jbr  |
| Sample ID: BFM-1                                                 | Test Date: 08/20/12   | Checked By: jdt |
| Depth: ---                                                       | Test Id: 247751       |                 |
| Test Comment: ---                                                |                       |                 |
| Sample Description: Moist, olive sandy silt (soil-bentonite mix) |                       |                 |
| Sample Comment: ---                                              |                       |                 |

## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
|----------|----------|--------|--------------------|
| ---      | 0.4      | 47.9   | 51.7               |

| Sieve Name | Sieve Size, mm     | Percent Finer | Spec. Percent | Complies |
|------------|--------------------|---------------|---------------|----------|
| 0.375 in   | 9.50               | 100           |               |          |
| #4         | 4.75               | 100           |               |          |
| #10        | 2.00               | 97            |               |          |
| #20        | 0.85               | 93            |               |          |
| #40        | 0.42               | 86            |               |          |
| #60        | 0.25               | 77            |               |          |
| #100       | 0.15               | 66            |               |          |
| #200       | 0.075              | 52            |               |          |
| ---        | Particle Size (mm) | Percent Finer | Spec. Percent | Complies |
| ---        | 0.0315             | 42            |               |          |
| ---        | 0.0205             | 32            |               |          |
| ---        | 0.0123             | 23            |               |          |
| ---        | 0.0089             | 19            |               |          |
| ---        | 0.0064             | 14            |               |          |
| ---        | 0.0046             | 10            |               |          |
| ---        | 0.0033             | 9             |               |          |
| ---        | 0.0013             | 6             |               |          |

| Coefficients                |                             |
|-----------------------------|-----------------------------|
| D <sub>85</sub> = 0.4008 mm | D <sub>30</sub> = 0.0183 mm |
| D <sub>60</sub> = 0.1121 mm | D <sub>15</sub> = 0.0066 mm |
| D <sub>50</sub> = 0.0649 mm | D <sub>10</sub> = 0.0042 mm |
| C <sub>u</sub> = N/A        | C <sub>c</sub> = N/A        |

| Classification |                       |
|----------------|-----------------------|
| ASTM           | N/A                   |
| AASHTO         | Silty Soils (A-4 (0)) |

| Sample/Test Description    |       |
|----------------------------|-------|
| Sand/Gravel Particle Shape | : --- |
| Sand/Gravel Hardness       | : --- |



|                     |                                              |             |     |
|---------------------|----------------------------------------------|-------------|-----|
| Client:             | Moretrench American Corp.                    |             |     |
| Project Name:       | Shepley Landfill                             |             |     |
| Project Location:   | Devens, MA                                   |             |     |
| GTX #:              | 11659                                        |             |     |
| Start Date:         | 8/21/2012                                    | Tested By:  | ema |
| End Date:           | 8/28/2012                                    | Checked By: | mpd |
| Boring #:           | ---                                          |             |     |
| Sample #:           | BFM-1                                        |             |     |
| Depth:              | ----                                         |             |     |
| Visual Description: | Moist, olive sandy silt (soil-bentonite mix) |             |     |

## Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter by ASTM D 5084 Constant Volume

|                     |                                                                                                         |                 |                          |
|---------------------|---------------------------------------------------------------------------------------------------------|-----------------|--------------------------|
| Sample Type:        | Remolded                                                                                                | Permeant Fluid: | De-aired Distilled water |
| Orientation:        | Vertical                                                                                                | Cell #:         | 12/3/2                   |
| Sample Preparation: | Target Compaction: Moderate effort at as prepared Moisture Content . Trimmings moisture content = 28.8% |                 |                          |

| Parameter               | Initial | Final |
|-------------------------|---------|-------|
| Height, in              | 2.42    | 2.18  |
| Diameter, in            | 2.85    | 2.75  |
| Area, in <sup>2</sup>   | 6.38    | 5.94  |
| Volume, in <sup>3</sup> | 15.4    | 12.9  |
| Mass, g                 | 500     | 467   |
| Bulk Density, pcf       | 123     | 137   |
| Moisture Content, %     | 29.7    | 21.3  |
| Dry Density, pcf        | 94.9    | 113   |
| Degree of Saturation, % |         | 100   |

### B COEFFICIENT DETERMINATION

|                       |       |                          |       |
|-----------------------|-------|--------------------------|-------|
| Cell Pressure, psi:   | 95.2  | Pressure Increment, psi: | 5.00  |
| Sample Pressure, psi: | 90.14 | B Coefficient:           | 0.979 |

### FLOW DATA

| Date | Trial # | Pressure, psi |        | Manometer Readings |                |                                | Elapsed Time, sec | Gradient | Permeability K, cm/sec | Temp, °C | R <sub>t</sub> | Permeability K @ 20 °C, cm/sec |
|------|---------|---------------|--------|--------------------|----------------|--------------------------------|-------------------|----------|------------------------|----------|----------------|--------------------------------|
|      |         | Cell          | Sample | Z <sub>1</sub>     | Z <sub>2</sub> | Z <sub>1</sub> -Z <sub>2</sub> |                   |          |                        |          |                |                                |
| 8/27 | 2       | 90            | 85     | 12.0               | 11.8           | 0.2                            | 51                | 27.3     | 1.2E-07                | 20       | 1.000          | 1.2E-07                        |
| 8/27 | 3       | 90            | 85     | 12.0               | 11.8           | 0.2                            | 51                | 27.3     | 1.2E-07                | 20       | 1.000          | 1.2E-07                        |
| 8/27 | 4       | 90            | 85     | 12.0               | 11.8           | 0.2                            | 51                | 27.3     | 1.2E-07                | 20       | 1.000          | 1.2E-07                        |
| 8/27 | 5       | 90            | 85     | 12.0               | 11.8           | 0.2                            | 51                | 27.3     | 1.2E-07                | 20       | 1.000          | 1.2E-07                        |

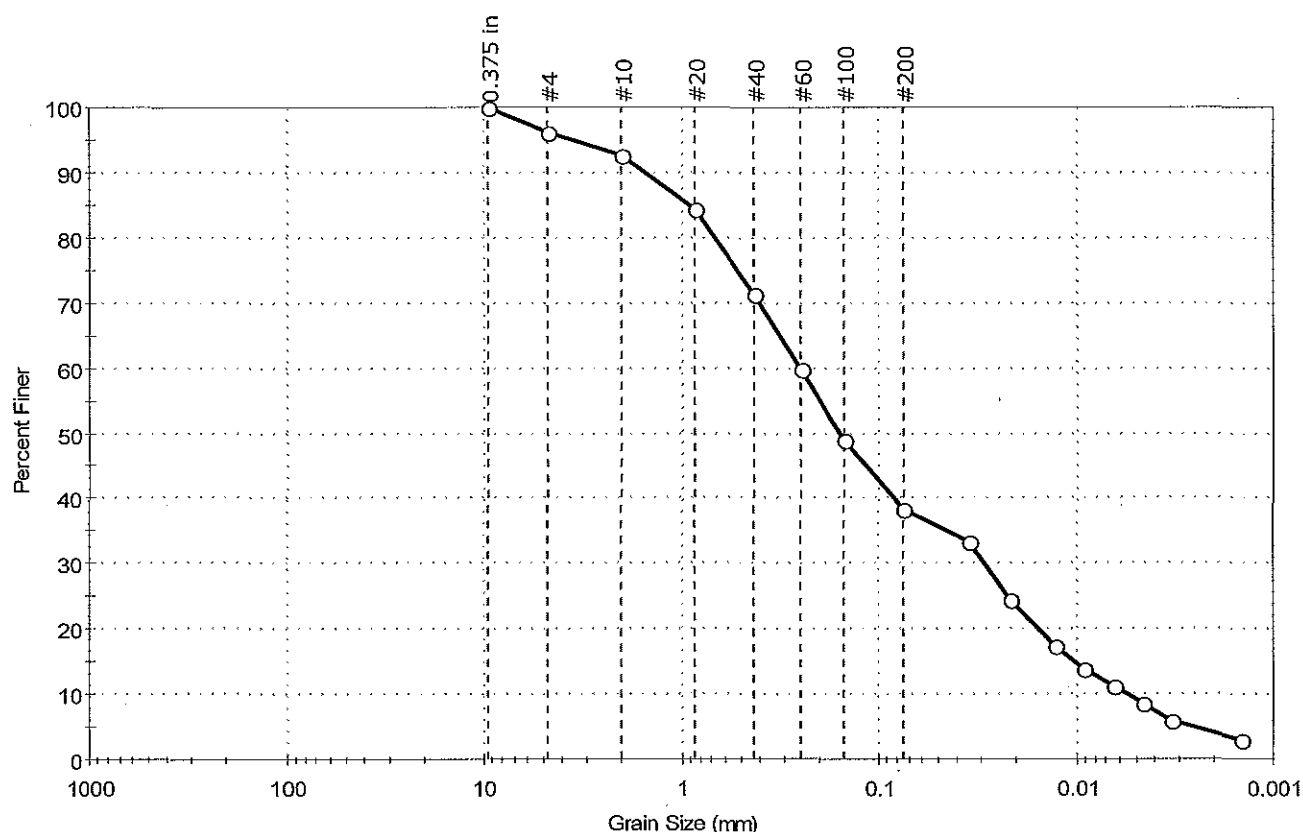
**PERMEABILITY AT 20° C:  $1.2 \times 10^{-7}$  cm/sec (@ 5 psi effective stress)**





|                                                       |                       |
|-------------------------------------------------------|-----------------------|
| Client: Moretrench American Corp.                     | Project No: GTX-11659 |
| Project: Shepley Landfill                             |                       |
| Location: Devens, MA                                  |                       |
| Boring ID: ---                                        | Sample Type: bag      |
| Sample ID: BFM-3                                      | Test Date: 08/22/12   |
| Depth: ---                                            | Test Id: 247837       |
| Test Comment: ---                                     | Tested By: jbr        |
| Sample Description: Moist, yellowish brown silty sand | Checked By: mpd       |
| Sample Comment: ---                                   |                       |

## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
|----------|----------|--------|--------------------|
| —        | 3.9      | 57.8   | 38.3               |

| Sieve Name | Sieve Size, mm     | Percent Finer | Spec. Percent | Complies |
|------------|--------------------|---------------|---------------|----------|
| 0.375 in   | 9.50               | 100           |               |          |
| #4         | 4.75               | 96            |               |          |
| #10        | 2.00               | 93            |               |          |
| #20        | 0.85               | 84            |               |          |
| #40        | 0.42               | 71            |               |          |
| #60        | 0.25               | 60            |               |          |
| #100       | 0.15               | 49            |               |          |
| #200       | 0.075              | 38            |               |          |
| ---        | Particle Size (mm) | Percent Finer | Spec. Percent | Complies |
| ---        | 0.0347             | 33            |               |          |
| ---        | 0.0220             | 25            |               |          |
| ---        | 0.0129             | 17            |               |          |
| ---        | 0.0092             | 14            |               |          |
| ---        | 0.0065             | 11            |               |          |
| ---        | 0.0047             | 8             |               |          |
| ---        | 0.0033             | 6             |               |          |
| ---        | 0.0015             | 3             |               |          |

### Coefficients

$D_{85} = 0.9194$  mm       $D_{30} = 0.0293$  mm  
 $D_{60} = 0.2518$  mm       $D_{15} = 0.0103$  mm  
 $D_{50} = 0.1568$  mm       $D_{10} = 0.0057$  mm  
 $C_u = N/A$        $C_c = N/A$

### Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

### Sample/Test Description

Sand/Gravel Particle Shape : **ROUNDED**  
 Sand/Gravel Hardness : **HARD**



|                     |                                                      |             |     |
|---------------------|------------------------------------------------------|-------------|-----|
| Client:             | Moretrench American Corp.                            |             |     |
| Project Name:       | Shepley Landfill                                     |             |     |
| Project Location:   | Devens, MA                                           |             |     |
| GTX #:              | 11659                                                |             |     |
| Start Date:         | 8/24/2012                                            | Tested By:  | ema |
| End Date:           | 8/28/2012                                            | Checked By: | mpd |
| Boring #:           | ---                                                  |             |     |
| Sample #:           | BFM-3                                                |             |     |
| Depth:              | ---                                                  |             |     |
| Visual Description: | Wet, yellowish brown silty sand (soil-bentonite mix) |             |     |

## Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter by ASTM D 5084 Constant Volume

|                     |                                                                                                         |                 |                          |
|---------------------|---------------------------------------------------------------------------------------------------------|-----------------|--------------------------|
| Sample Type:        | Remolded                                                                                                | Permeant Fluid: | De-aired Distilled water |
| Orientation:        | Vertical                                                                                                | Cell #:         | 19/4/5                   |
| Sample Preparation: | Target Compaction: Moderate effort at as prepared Moisture Content . Trimmings moisture content = 20.6% |                 |                          |

| Parameter               | Initial | Final |
|-------------------------|---------|-------|
| Height, in              | 2.61    | 2.20  |
| Diameter, in            | 2.85    | 2.80  |
| Area, in <sup>2</sup>   | 6.38    | 6.16  |
| Volume, in <sup>3</sup> | 16.7    | 13.5  |
| Mass, g                 | 494     | 468   |
| Bulk Density, pcf       | 113     | 131   |
| Moisture Content, %     | 27.7    | 20.9  |
| Dry Density, pcf        | 88.3    | 109   |
| Degree of Saturation, % | ---     | 99    |

### B COEFFICIENT DETERMINATION

|                       |       |                          |       |
|-----------------------|-------|--------------------------|-------|
| Cell Pressure, psi:   | 95.05 | Pressure Increment, psi: | 5.01  |
| Sample Pressure, psi: | 9.171 | B Coefficient:           | 0.984 |

### FLOW DATA

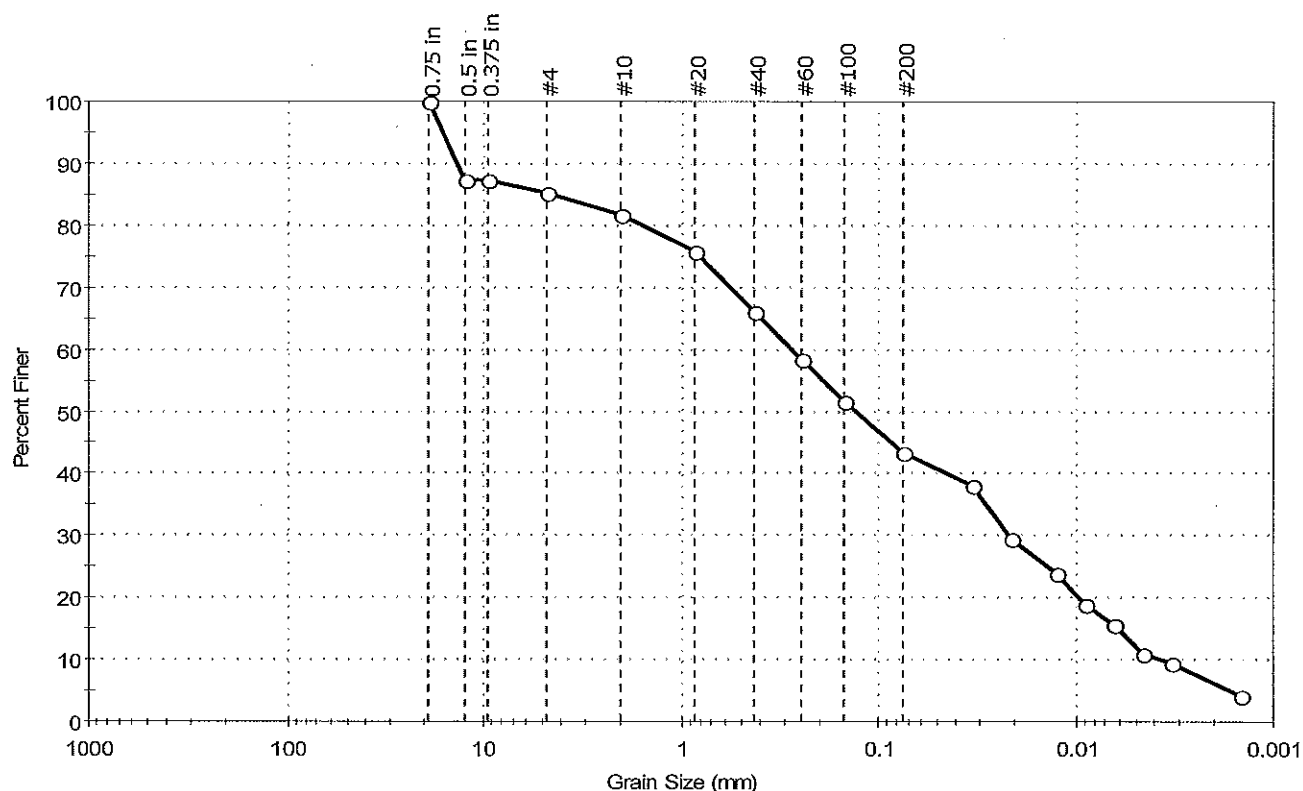
| Date | Trial # | Pressure, psi |        | Manometer Readings |                |                                | Elapsed Time, sec | Gradient | Permeability K, cm/sec | Temp, °C | R <sub>t</sub> | Permeability K @ 20 °C, cm/sec |
|------|---------|---------------|--------|--------------------|----------------|--------------------------------|-------------------|----------|------------------------|----------|----------------|--------------------------------|
|      |         | Cell          | Sample | Z <sub>1</sub>     | Z <sub>2</sub> | Z <sub>1</sub> -Z <sub>2</sub> |                   |          |                        |          |                |                                |
| 8/27 | 2       | 90            | 85     | 11.0               | 10.9           | 0.1                            | 38                | 24.8     | 8.4E-08                | 20       | 1.000          | 8.4E-08                        |
| 8/27 | 3       | 90            | 85     | 11.0               | 10.9           | 0.1                            | 38                | 24.8     | 8.4E-08                | 20       | 1.000          | 8.4E-08                        |
| 8/27 | 4       | 90            | 85     | 11.0               | 10.9           | 0.1                            | 40                | 24.8     | 8.0E-08                | 20       | 1.000          | 8.0E-08                        |
| 8/27 | 5       | 90            | 85     | 11.0               | 10.9           | 0.1                            | 41                | 24.8     | 7.8E-08                | 20       | 1.000          | 7.8E-08                        |

**PERMEABILITY AT 20° C:  $8.2 \times 10^{-8}$  cm/sec (@ 5 psi effective stress)**



|                                                       |                       |                 |
|-------------------------------------------------------|-----------------------|-----------------|
| Client: Moretrench American Corp.                     | Project No: GTX-11659 |                 |
| Project: Shepley Landfill                             |                       |                 |
| Location: Devens, MA                                  |                       |                 |
| Boring ID: ----                                       | Sample Type: bag      | Tested By: jbr  |
| Sample ID: BFM-6                                      | Test Date: 08/22/12   | Checked By: mpd |
| Depth: ----                                           | Test Id: 247840       |                 |
| Test Comment: ----                                    |                       |                 |
| Sample Description: Moist, yellowish brown silty sand |                       |                 |
| Sample Comment: ----                                  |                       |                 |

## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
|----------|----------|--------|--------------------|
| —        | 14.9     | 41.9   | 43.2               |

| Sieve Name | Sieve Size, mm     | Percent Finer | Spec. Percent | Complies |
|------------|--------------------|---------------|---------------|----------|
| 0.75 in    | 19.00              | 100           |               |          |
| 0.5 in     | 12.50              | 87            |               |          |
| 0.375 in   | 9.50               | 87            |               |          |
| #4         | 4.75               | 85            |               |          |
| #10        | 2.00               | 82            |               |          |
| #20        | 0.85               | 76            |               |          |
| #40        | 0.42               | 66            |               |          |
| #60        | 0.25               | 58            |               |          |
| #100       | 0.15               | 52            |               |          |
| #200       | 0.075              | 43            |               |          |
| ---        | Particle Size (mm) | Percent Finer | Spec. Percent | Complies |
| ---        | 0.0334             | 38            |               |          |
| ---        | 0.0214             | 29            |               |          |
| ---        | 0.0125             | 24            |               |          |
| ---        | 0.0089             | 19            |               |          |
| ---        | 0.0064             | 16            |               |          |
| ---        | 0.0046             | 11            |               |          |
| ---        | 0.0033             | 9             |               |          |
| ---        | 0.0015             | 4             |               |          |

### Coefficients

|                             |                             |
|-----------------------------|-----------------------------|
| D <sub>85</sub> = 4.5862 mm | D <sub>30</sub> = 0.0220 mm |
| D <sub>60</sub> = 0.2796 mm | D <sub>15</sub> = 0.0061 mm |
| D <sub>50</sub> = 0.1306 mm | D <sub>10</sub> = 0.0038 mm |
| C <sub>u</sub> = N/A        | C <sub>c</sub> = N/A        |

### Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

### Sample/Test Description

Sand/Gravel Particle Shape : **ROUNDED**  
 Sand/Gravel Hardness : **HARD**



|                     |                                                      |             |     |
|---------------------|------------------------------------------------------|-------------|-----|
| Client:             | Moretrench American Corp.                            |             |     |
| Project Name:       | Shepley Landfill                                     |             |     |
| Project Location:   | Devens, MA                                           |             |     |
| GTX #:              | 11659                                                |             |     |
| Start Date:         | 8/24/2012                                            | Tested By:  | ema |
| End Date:           | 8/28/2012                                            | Checked By: | mpd |
| Boring #:           | ---                                                  |             |     |
| Sample #:           | BFM-6                                                |             |     |
| Depth:              | ---                                                  |             |     |
| Visual Description: | Wet, yellowish brown silty sand (soil-bentonite mix) |             |     |

## Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter by ASTM D 5084 Constant Volume

|                     |                                                                                                       |                 |                          |
|---------------------|-------------------------------------------------------------------------------------------------------|-----------------|--------------------------|
| Sample Type:        | Remolded                                                                                              | Permeant Fluid: | De-aired Distilled water |
| Orientation:        | Vertical                                                                                              | Cell #:         | 5/2/15                   |
| Sample Preparation: | Target Compaction: Moderate effort at as prepared Moisture Content . Trimmings moisture content = 27% |                 |                          |

| Parameter               | Initial | Final |
|-------------------------|---------|-------|
| Height, in              | 2.38    | 2.36  |
| Diameter, in            | 2.85    | 2.62  |
| Area, in <sup>2</sup>   | 6.38    | 5.39  |
| Volume, in <sup>3</sup> | 15.2    | 12.7  |
| Mass, g                 | 469     | 445   |
| Bulk Density, pcf       | 117     | 133   |
| Moisture Content, %     | 25.5    | 19.1  |
| Dry Density, pcf        | 93.6    | 112   |
| Degree of Saturation, % | ---     | 99    |

### B COEFFICIENT DETERMINATION

|                       |       |                          |      |
|-----------------------|-------|--------------------------|------|
| Cell Pressure, psi:   | 95.11 | Pressure Increment, psi: | 5.03 |
| Sample Pressure, psi: | 90.23 | B Coefficient:           | 1    |

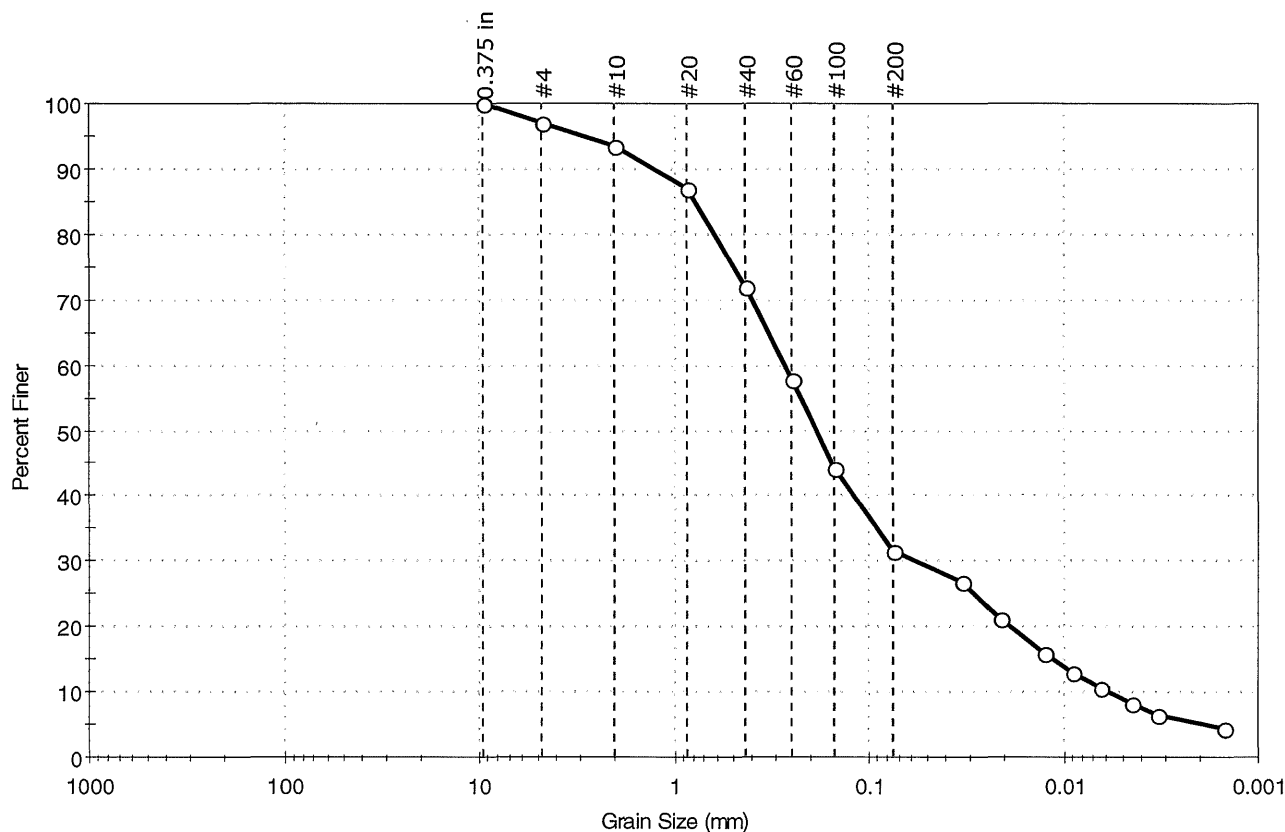
### FLOW DATA

| Date | Trial # | Pressure, psi |        | Manometer Readings |                |                                | Elapsed Time, sec | Gradient | Permeability K, cm/sec | Temp, °C | R <sub>t</sub> | Permeability K @ 20 °C, cm/sec |
|------|---------|---------------|--------|--------------------|----------------|--------------------------------|-------------------|----------|------------------------|----------|----------------|--------------------------------|
|      |         | Cell          | Sample | Z <sub>1</sub>     | Z <sub>2</sub> | Z <sub>1</sub> -Z <sub>2</sub> |                   |          |                        |          |                |                                |
| 8/27 | 1       | 90            | 85     | 11.0               | 10.9           | 0.1                            | 49                | 23.1     | 8.0E-08                | 20       | 1.000          | 8.0E-08                        |
| 8/27 | 2       | 90            | 85     | 11.0               | 10.9           | 0.1                            | 55                | 23.1     | 7.1E-08                | 20       | 1.000          | 7.1E-08                        |
| 8/27 | 3       | 90            | 85     | 11.0               | 10.9           | 0.1                            | 54                | 23.1     | 7.3E-08                | 20       | 1.000          | 7.3E-08                        |
| 8/27 | 4       | 90            | 85     | 11.0               | 10.9           | 0.1                            | 54                | 23.1     | 7.3E-08                | 20       | 1.000          | 7.3E-08                        |

**PERMEABILITY AT 20° C:  $7.4 \times 10^{-8}$  cm/sec (@ 5 psi effective stress)**

|                     |                                               |              |           |
|---------------------|-----------------------------------------------|--------------|-----------|
| Client:             | Moretrench American Corp.                     | Project No:  | GTX-11659 |
| Project:            | Shepley Landfill                              | Tested By:   | jbr       |
| Location:           | Devens, MA                                    | Checked By:  | jdt       |
| Boring ID:          | ---                                           | Sample Type: | bag       |
| Sample ID:          | BFM-9                                         | Test Date:   | 08/28/12  |
| Depth :             | ---                                           | Test Id:     | 248063    |
| Test Comment:       | ---                                           |              |           |
| Sample Description: | Moist, olive clayey sand (soil-bentonite mix) |              |           |
| Sample Comment:     | ---                                           |              |           |

## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
|----------|----------|--------|--------------------|
| ---      | 3.0      | 65.5   | 31.5               |

| Sieve Name | Sieve Size, mm     | Percent Finer | Spec. Percent | Complies |
|------------|--------------------|---------------|---------------|----------|
| 0.375 in   | 9.50               | 100           |               |          |
| #4         | 4.75               | 97            |               |          |
| #10        | 2.00               | 93            |               |          |
| #20        | 0.85               | 87            |               |          |
| #40        | 0.42               | 72            |               |          |
| #60        | 0.25               | 58            |               |          |
| #100       | 0.15               | 44            |               |          |
| #200       | 0.075              | 32            |               |          |
| ---        | Particle Size (mm) | Percent Finer | Spec. Percent | Complies |
| ---        | 0.0333             | 27            |               |          |
| ---        | 0.0212             | 21            |               |          |
| ---        | 0.0125             | 16            |               |          |
| ---        | 0.0090             | 13            |               |          |
| ---        | 0.0064             | 11            |               |          |
| ---        | 0.0045             | 8             |               |          |
| ---        | 0.0033             | 6             |               |          |
| ---        | 0.0015             | 5             |               |          |

### Coefficients

|                             |                             |
|-----------------------------|-----------------------------|
| D <sub>85</sub> = 0.7741 mm | D <sub>30</sub> = 0.0581 mm |
| D <sub>60</sub> = 0.2711 mm | D <sub>15</sub> = 0.0113 mm |
| D <sub>50</sub> = 0.1863 mm | D <sub>10</sub> = 0.0059 mm |
| C <sub>u</sub> = N/A        | C <sub>c</sub> = N/A        |

### Classification

ASTM N/A

AASHTO Silty Gravel and Sand (A-2-4 (0))

### Sample/Test Description

Sand/Gravel Particle Shape : ROUNDED  
Sand/Gravel Hardness : HARD



|                     |                                               |             |     |
|---------------------|-----------------------------------------------|-------------|-----|
| Client:             | Moretrench American Corp.                     |             |     |
| Project Name:       | Shepley Landfill                              |             |     |
| Project Location:   | Devens, MA                                    |             |     |
| GTX #:              | 11659                                         |             |     |
| Start Date:         | 8/27/2012                                     | Tested By:  | ema |
| End Date:           | 8/30/2012                                     | Checked By: | jdt |
| Boring #:           | ---                                           |             |     |
| Sample #:           | BFM-9                                         |             |     |
| Depth:              | ---                                           |             |     |
| Visual Description: | Moist, olive clayey sand (soil-bentonite mix) |             |     |

## Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter by ASTM D 5084 Constant Volume

Sample Type: Remolded      Permeant Fluid: De-aired Distilled water  
 Orientation: Vertical      Cell #: 2/2/4  
 Sample Preparation: Test specimen compacted with moderate effort at the as-received moisture content . Trimmings moisture content = 28.4%

| Parameter               | Initial | Final |
|-------------------------|---------|-------|
| Height, in              | 2.56    | 2.29  |
| Diameter, in            | 2.85    | 2.72  |
| Area, in <sup>2</sup>   | 6.38    | 5.81  |
| Volume, in <sup>3</sup> | 16.3    | 13.3  |
| Mass, g                 | 509     | 470   |
| Bulk Density, pcf       | 118     | 134   |
| Moisture Content, %     | 28.9    | 19.1  |
| Dry Density, pcf        | 91.9    | 113   |
| Degree of Saturation, % | ---     | 97    |

### B COEFFICIENT DETERMINATION

Cell Pressure, psi: 95.1      Pressure Increment, psi: 5.03  
 Sample Pressure, psi: 90.2      B Coefficient: 0.98

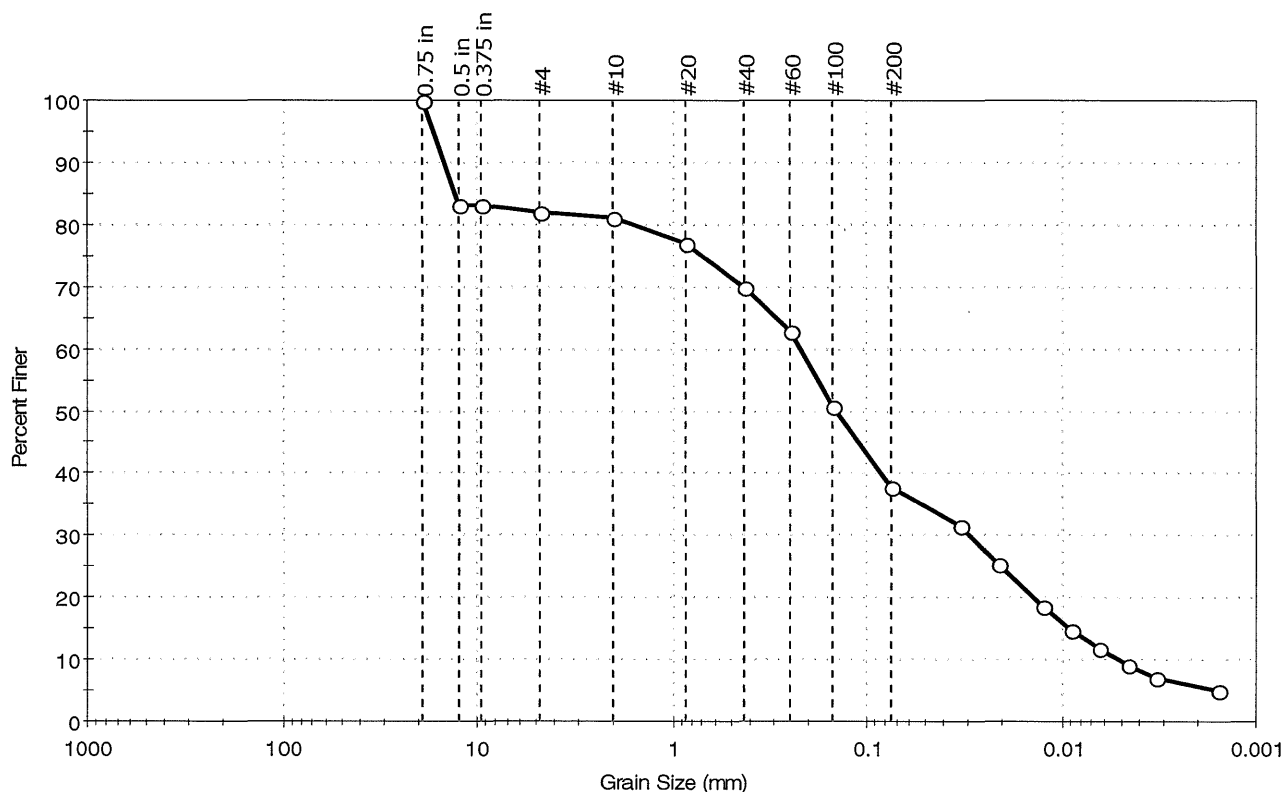
### FLOW DATA

| Date | Trial # | Pressure, psi |        | Manometer Readings |                |                                | Elapsed Time, sec | Gradient | Permeability K, cm/sec | Temp, °C | R <sub>t</sub> | Permeability K @ 20 °C, cm/sec |
|------|---------|---------------|--------|--------------------|----------------|--------------------------------|-------------------|----------|------------------------|----------|----------------|--------------------------------|
|      |         | Cell          | Sample | Z <sub>1</sub>     | Z <sub>2</sub> | Z <sub>1</sub> -Z <sub>2</sub> |                   |          |                        |          |                |                                |
| 8/29 | 1       | 90            | 85     | 12.0               | 11.8           | 0.2                            | 66                | 26.0     | 9.9E-08                | 20       | 1.000          | 9.9E-08                        |
| 8/29 | 2       | 90            | 85     | 12.0               | 11.8           | 0.2                            | 68                | 26.0     | 9.6E-08                | 20       | 1.000          | 9.6E-08                        |
| 8/29 | 3       | 90            | 85     | 12.0               | 11.8           | 0.2                            | 69                | 26.0     | 9.4E-08                | 20       | 1.000          | 9.4E-08                        |
| 8/29 | 4       | 90            | 85     | 12.0               | 11.8           | 0.2                            | 70                | 26.0     | 9.3E-08                | 20       | 1.000          | 9.3E-08                        |

**PERMEABILITY AT 20° C:  $9.5 \times 10^{-8}$  cm/sec (@ 5 psi effective stress)**

|                                                                   |                       |
|-------------------------------------------------------------------|-----------------------|
| Client: Moretrench American Corp.                                 | Project No: GTX-11659 |
| Project: Shepley Landfill                                         | Tested By: jbr        |
| Location: Devens, MA                                              | Checked By: jdt       |
| Boring ID: ---                                                    | Sample Type: bag      |
| Sample ID: BFM-10                                                 | Test Date: 08/27/12   |
| Depth: ---                                                        | Test Id: 248064       |
| Test Comment: ---                                                 |                       |
| Sample Description: Moist, olive clayey sand (soil-bentonite mix) |                       |
| Sample Comment: ---                                               |                       |

## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
|----------|----------|--------|--------------------|
| ---      | 17.9     | 44.2   | 37.9               |

| Sieve Name | Sieve Size, mm     | Percent Finer | Spec. Percent | Complies |
|------------|--------------------|---------------|---------------|----------|
| 0.75 in    | 19.00              | 100           |               |          |
| 0.5 in     | 12.50              | 83            |               |          |
| 0.375 in   | 9.50               | 83            |               |          |
| #4         | 4.75               | 82            |               |          |
| #10        | 2.00               | 81            |               |          |
| #20        | 0.85               | 77            |               |          |
| #40        | 0.42               | 70            |               |          |
| #60        | 0.25               | 63            |               |          |
| #100       | 0.15               | 51            |               |          |
| #200       | 0.075              | 38            |               |          |
| ---        | Particle Size (mm) | Percent Finer | Spec. Percent | Complies |
| ---        | 0.0333             | 32            |               |          |
| ---        | 0.0210             | 25            |               |          |
| ---        | 0.0125             | 19            |               |          |
| ---        | 0.0090             | 15            |               |          |
| ---        | 0.0064             | 12            |               |          |
| ---        | 0.0046             | 9             |               |          |
| ---        | 0.0033             | 7             |               |          |
| ---        | 0.0016             | 5             |               |          |

| Coefficients                 |                             |
|------------------------------|-----------------------------|
| D <sub>85</sub> = 13.0717 mm | D <sub>30</sub> = 0.0295 mm |
| D <sub>60</sub> = 0.2212 mm  | D <sub>15</sub> = 0.0093 mm |
| D <sub>50</sub> = 0.1441 mm  | D <sub>10</sub> = 0.0050 mm |
| C <sub>u</sub> = N/A         | C <sub>c</sub> = N/A        |

| Classification |                       |
|----------------|-----------------------|
| ASTM           | N/A                   |
| AASHTO         | Silty Soils (A-4 (0)) |

| Sample/Test Description    |           |
|----------------------------|-----------|
| Sand/Gravel Particle Shape | : ROUNDED |
| Sand/Gravel Hardness       | : HARD    |



|                     |                                                       |             |     |
|---------------------|-------------------------------------------------------|-------------|-----|
| Client:             | Moretrench American Corp.                             |             |     |
| Project Name:       | Shepley Landfill                                      |             |     |
| Project Location:   | Devens, MA                                            |             |     |
| GTX #:              | 11659                                                 |             |     |
| Start Date:         | 8/27/2012                                             | Tested By:  | ema |
| End Date:           | 8/30/2012                                             | Checked By: | jdt |
| Boring #:           | ---                                                   |             |     |
| Sample #:           | BFM-10                                                |             |     |
| Depth:              | ---                                                   |             |     |
| Visual Description: | Wet, yellowish brown clayey sand (soil-bentonite mix) |             |     |

## Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter by ASTM D 5084 Constant Volume

|                     |                                                                                                                       |                 |                          |
|---------------------|-----------------------------------------------------------------------------------------------------------------------|-----------------|--------------------------|
| Sample Type:        | Remolded                                                                                                              | Permeant Fluid: | De-aired Distilled water |
| Orientation:        | Vertical                                                                                                              | Cell #:         | 15/1/7                   |
| Sample Preparation: | Test specimen compacted with moderate effort at the as-received moisture content . Trimmings moisture content = 28.2% |                 |                          |

| Parameter               | Initial | Final |
|-------------------------|---------|-------|
| Height, in              | 2.66    | 2.32  |
| Diameter, in            | 2.85    | 2.72  |
| Area, in <sup>2</sup>   | 6.38    | 5.81  |
| Volume, in <sup>3</sup> | 17.0    | 13.5  |
| Mass, g                 | 506     | 471   |
| Bulk Density, pcf       | 113     | 133   |
| Moisture Content, %     | 29.8    | 20.9  |
| Dry Density, pcf        | 87.3    | 110   |
| Degree of Saturation, % | ---     | 99    |

### B COEFFICIENT DETERMINATION

|                       |      |                          |      |
|-----------------------|------|--------------------------|------|
| Cell Pressure, psi:   | 95.2 | Pressure Increment, psi: | 5.00 |
| Sample Pressure, psi: | 90.2 | B Coefficient:           | 0.98 |

### FLOW DATA

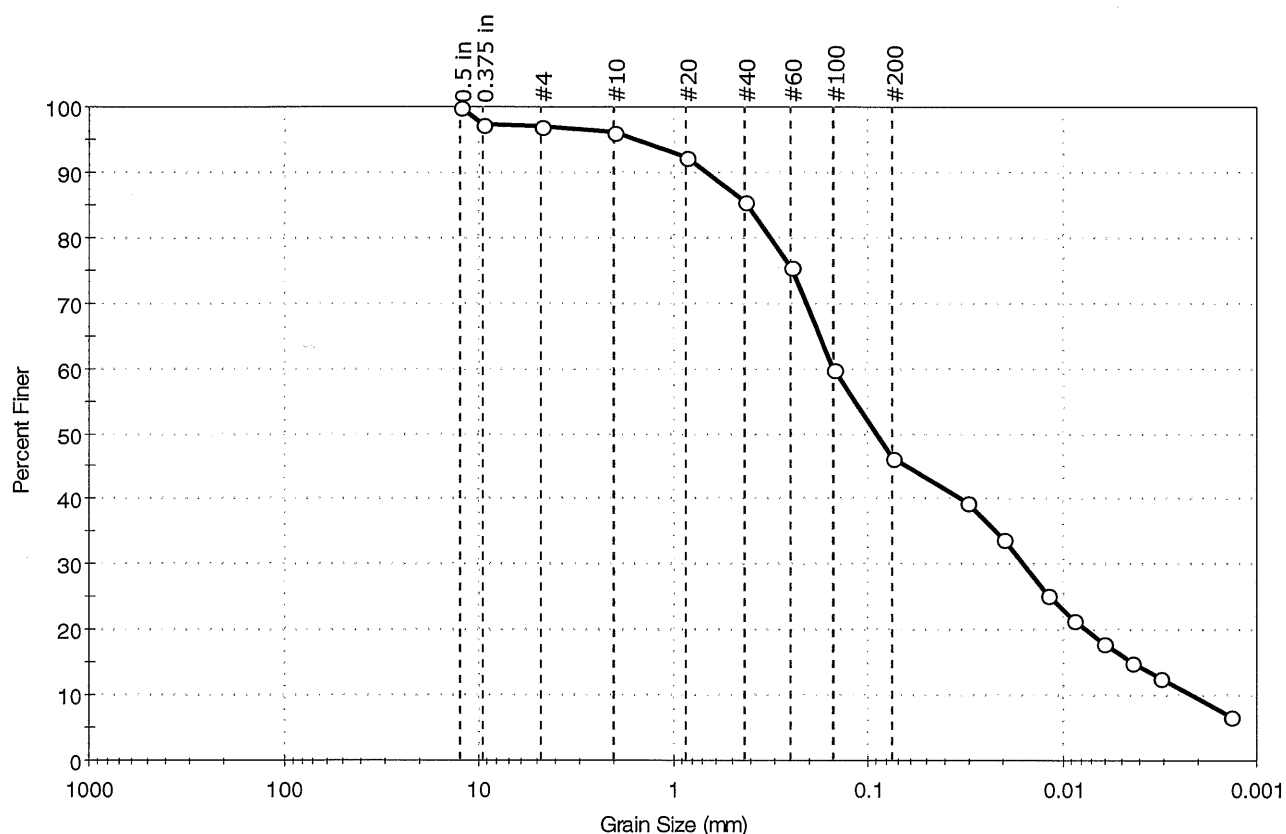
| Date | Trial # | Pressure, psi |        | Manometer Readings |                |                                | Elapsed Time, sec | Gradient | Permeability K, cm/sec | Temp, °C | R <sub>t</sub> | Permeability K @ 20 °C, cm/sec |
|------|---------|---------------|--------|--------------------|----------------|--------------------------------|-------------------|----------|------------------------|----------|----------------|--------------------------------|
|      |         | Cell          | Sample | Z <sub>1</sub>     | Z <sub>2</sub> | Z <sub>1</sub> -Z <sub>2</sub> |                   |          |                        |          |                |                                |
| 8/29 | 1       | 90            | 85     | 12.0               | 11.9           | 0.1                            | 38                | 25.7     | 8.6E-08                | 20       | 1.000          | 8.6E-08                        |
| 8/29 | 2       | 90            | 85     | 12.0               | 11.9           | 0.1                            | 40                | 25.7     | 8.2E-08                | 20       | 1.000          | 8.2E-08                        |
| 8/29 | 3       | 90            | 85     | 12.0               | 11.9           | 0.1                            | 41                | 25.7     | 8.0E-08                | 20       | 1.000          | 8.0E-08                        |
| 8/29 | 4       | 90            | 85     | 12.0               | 11.9           | 0.1                            | 41                | 25.7     | 8.0E-08                | 20       | 1.000          | 8.0E-08                        |

**PERMEABILITY AT 20° C:  $8.2 \times 10^{-8}$  cm/sec (@ 5 psi effective stress)**



|                                                                             |                       |
|-----------------------------------------------------------------------------|-----------------------|
| Client: Moretrench American Corp.                                           | Project No: GTX-11659 |
| Project: Shepley Landfill                                                   |                       |
| Location: Devens, MA                                                        |                       |
| Boring ID: ---                                                              | Sample Type: bag      |
| Sample ID: BFM-13                                                           | Test Date: 09/06/12   |
| Depth: ---                                                                  | Test Id: 248846       |
| Test Comment: ---                                                           | Tested By: jbr        |
| Sample Description: Moist, yellowish brown clayey sand (soil-bentonite mix) | Checked By: jdt       |
| Sample Comment: ---                                                         |                       |

## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
|----------|----------|--------|--------------------|
| ---      | 2.9      | 50.9   | 46.2               |

| Sieve Name | Sieve Size, mm     | Percent Finer | Spec. Percent | Complies |
|------------|--------------------|---------------|---------------|----------|
| 0.5 in     | 12.50              | 100           |               |          |
| 0.375 in   | 9.50               | 97            |               |          |
| #4         | 4.75               | 97            |               |          |
| #10        | 2.00               | 96            |               |          |
| #20        | 0.85               | 92            |               |          |
| #40        | 0.42               | 86            |               |          |
| #60        | 0.25               | 76            |               |          |
| #100       | 0.15               | 60            |               |          |
| #200       | 0.075              | 46            |               |          |
| ---        | Particle Size (mm) | Percent Finer | Spec. Percent | Complies |
| ---        | 0.0313             | 39            |               |          |
| ---        | 0.0200             | 34            |               |          |
| ---        | 0.0121             | 25            |               |          |
| ---        | 0.0087             | 22            |               |          |
| ---        | 0.0062             | 18            |               |          |
| ---        | 0.0044             | 15            |               |          |
| ---        | 0.0032             | 13            |               |          |
| ---        | 0.0014             | 7             |               |          |

### Coefficients

|                             |                             |
|-----------------------------|-----------------------------|
| D <sub>85</sub> = 0.4098 mm | D <sub>30</sub> = 0.0158 mm |
| D <sub>60</sub> = 0.1507 mm | D <sub>15</sub> = 0.0044 mm |
| D <sub>50</sub> = 0.0908 mm | D <sub>10</sub> = 0.0021 mm |
| C <sub>u</sub> = N/A        | C <sub>c</sub> = N/A        |

### Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

### Sample/Test Description

Sand/Gravel Particle Shape : ROUNDED  
Sand/Gravel Hardness : HARD



|                     |                                                                   |             |     |
|---------------------|-------------------------------------------------------------------|-------------|-----|
| Client:             | Moretrench American Corp.                                         |             |     |
| Project Name:       | Shepley Landfill                                                  |             |     |
| Project Location:   | Devens, MA                                                        |             |     |
| GTX #:              | 11659                                                             |             |     |
| Start Date:         | 9/5/2012                                                          | Tested By:  | ema |
| End Date:           | 9/12/2012                                                         | Checked By: | jdt |
| Boring #:           | ---                                                               |             |     |
| Sample #:           | BFM-13                                                            |             |     |
| Depth:              | ---                                                               |             |     |
| Visual Description: | Wet, yellowish brown clayey sand with gravel (soil-bentonite mix) |             |     |

## Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter by ASTM D 5084 Constant Volume

|                     |                                                                                                                       |                 |                          |
|---------------------|-----------------------------------------------------------------------------------------------------------------------|-----------------|--------------------------|
| Sample Type:        | Remolded                                                                                                              | Permeant Fluid: | De-aired Distilled water |
| Orientation:        | Vertical                                                                                                              | Cell #:         | 9/7/14                   |
| Sample Preparation: | Test specimen compacted with moderate effort at the as-received moisture content . Trimmings moisture content = 32.6% |                 |                          |

| Parameter               | Initial | Final |
|-------------------------|---------|-------|
| Height, in              | 2.44    | 2.38  |
| Diameter, in            | 2.85    | 2.69  |
| Area, in <sup>2</sup>   | 6.38    | 5.68  |
| Volume, in <sup>3</sup> | 15.6    | 13.5  |
| Mass, g                 | 508     | 467   |
| Bulk Density, pcf       | 124     | 131   |
| Moisture Content, %     | 31.2    | 20.6  |
| Dry Density, pcf        | 94.5    | 109   |
| Degree of Saturation, % | ---     | 95    |

### B COEFFICIENT DETERMINATION

|                       |      |                          |      |
|-----------------------|------|--------------------------|------|
| Cell Pressure, psi:   | 95.2 | Pressure Increment, psi: | 5.01 |
| Sample Pressure, psi: | 90.0 | B Coefficient:           | 0.97 |

### FLOW DATA

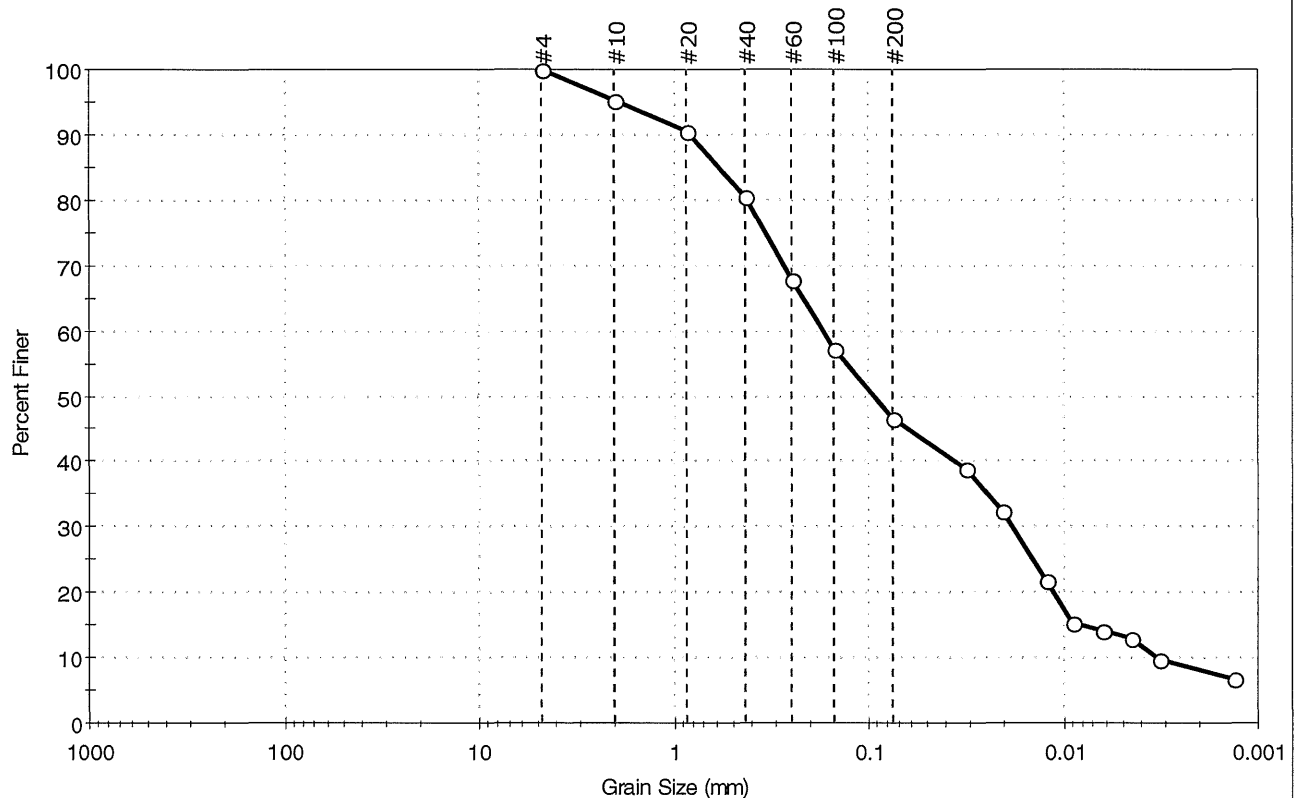
| Date | Trial # | Pressure, psi |        | Manometer Readings |                |                                | Elapsed Time, sec | Gradient | Permeability K, cm/sec | Temp, °C | R <sub>t</sub> | Permeability K @ 20 °C, cm/sec |
|------|---------|---------------|--------|--------------------|----------------|--------------------------------|-------------------|----------|------------------------|----------|----------------|--------------------------------|
|      |         | Cell          | Sample | Z <sub>1</sub>     | Z <sub>2</sub> | Z <sub>1</sub> -Z <sub>2</sub> |                   |          |                        |          |                |                                |
| 9/11 | 2       | 90            | 85     | 12.0               | 11.8           | 0.2                            | 63                | 25.0     | 1.1E-07                | 20       | 1.000          | 1.1E-07                        |
| 9/11 | 3       | 90            | 85     | 12.0               | 11.8           | 0.2                            | 66                | 25.0     | 1.0E-07                | 20       | 1.000          | 1.0E-07                        |
| 9/11 | 4       | 90            | 85     | 12.0               | 11.8           | 0.2                            | 67                | 25.0     | 1.0E-07                | 20       | 1.000          | 1.0E-07                        |
| 9/11 | 5       | 90            | 85     | 12.0               | 11.8           | 0.2                            | 67                | 25.0     | 1.0E-07                | 20       | 1.000          | 1.0E-07                        |

**PERMEABILITY AT 20° C:  $1.0 \times 10^{-7}$  cm/sec (@ 5 psi effective stress)**



|                                                                           |                       |                     |
|---------------------------------------------------------------------------|-----------------------|---------------------|
| Client: Moretrench American Corp.                                         | Project No: GTX-11659 |                     |
| Project: Shepley Landfill                                                 |                       |                     |
| Location: Devens, MA                                                      | Boring ID: ---        | Sample Type: bag    |
|                                                                           | Sample ID: BFM-16     | Test Date: 09/06/12 |
|                                                                           | Depth: ---            | Test Id: 248847     |
| Test Comment: ---                                                         |                       |                     |
| Sample Description: Wet, yellowish brown clayey sand (soil-bentonite mix) |                       |                     |
| Sample Comment: ---                                                       |                       |                     |

## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
|----------|----------|--------|--------------------|
| --       | 0.0      | 53.4   | 46.6               |

| Sieve Name | Sieve Size, mm     | Percent Finer | Spec. Percent | Complies |
|------------|--------------------|---------------|---------------|----------|
| #4         | 4.75               | 100           |               |          |
| #10        | 2.00               | 95            |               |          |
| #20        | 0.85               | 90            |               |          |
| #40        | 0.42               | 80            |               |          |
| #60        | 0.25               | 68            |               |          |
| #100       | 0.15               | 57            |               |          |
| #200       | 0.075              | 47            |               |          |
| ---        | Particle Size (mm) | Percent Finer | Spec. Percent | Complies |
| ---        | 0.0317             | 39            |               |          |
| ---        | 0.0205             | 32            |               |          |
| ---        | 0.0123             | 22            |               |          |
| ---        | 0.0090             | 15            |               |          |
| ---        | 0.0063             | 14            |               |          |
| ---        | 0.0045             | 13            |               |          |
| ---        | 0.0032             | 10            |               |          |
| ---        | 0.0013             | 7             |               |          |

### Coefficients

|                             |                             |
|-----------------------------|-----------------------------|
| D <sub>85</sub> = 0.5824 mm | D <sub>30</sub> = 0.0183 mm |
| D <sub>60</sub> = 0.1722 mm | D <sub>15</sub> = 0.0084 mm |
| D <sub>50</sub> = 0.0938 mm | D <sub>10</sub> = 0.0034 mm |
| C <sub>u</sub> = N/A        | C <sub>c</sub> = N/A        |

### Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

### Sample/Test Description

Sand/Gravel Particle Shape : ROUNDED  
Sand/Gravel Hardness : HARD



|                     |                                                       |             |     |
|---------------------|-------------------------------------------------------|-------------|-----|
| Client:             | Moretrench American Corp.                             |             |     |
| Project Name:       | Shepley Landfill                                      |             |     |
| Project Location:   | Devens, MA                                            |             |     |
| GTX #:              | 11659                                                 |             |     |
| Start Date:         | 9/5/2012                                              | Tested By:  | ema |
| End Date:           | 9/10/2012                                             | Checked By: | jdt |
| Boring #:           | ---                                                   |             |     |
| Sample #:           | BFM-16                                                |             |     |
| Depth:              | ---                                                   |             |     |
| Visual Description: | Wet, yellowish brown clayey sand (soil-bentonite mix) |             |     |

## Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter by ASTM D 5084 Constant Volume

|                     |                                                                                                                       |                 |                          |
|---------------------|-----------------------------------------------------------------------------------------------------------------------|-----------------|--------------------------|
| Sample Type:        | Remolded                                                                                                              | Permeant Fluid: | De-aired Distilled water |
| Orientation:        | Vertical                                                                                                              | Cell #:         | 15/1/7                   |
| Sample Preparation: | Test specimen compacted with moderate effort at the as-received moisture content . Trimmings moisture content = 28.0% |                 |                          |

| Parameter               | Initial | Final |
|-------------------------|---------|-------|
| Height, in              | 2.40    | 2.14  |
| Diameter, in            | 2.85    | 2.75  |
| Area, in <sup>2</sup>   | 6.38    | 5.94  |
| Volume, in <sup>3</sup> | 15.3    | 12.7  |
| Mass, g                 | 462     | 437   |
| Bulk Density, pcf       | 115     | 131   |
| Moisture Content, %     | 29.6    | 22.5  |
| Dry Density, pcf        | 88.5    | 107   |
| Degree of Saturation, % | ---     | 98    |

### B COEFFICIENT DETERMINATION

|                       |      |                          |      |
|-----------------------|------|--------------------------|------|
| Cell Pressure, psi:   | 95.3 | Pressure Increment, psi: | 5.12 |
| Sample Pressure, psi: | 90.3 | B Coefficient:           | 0.96 |

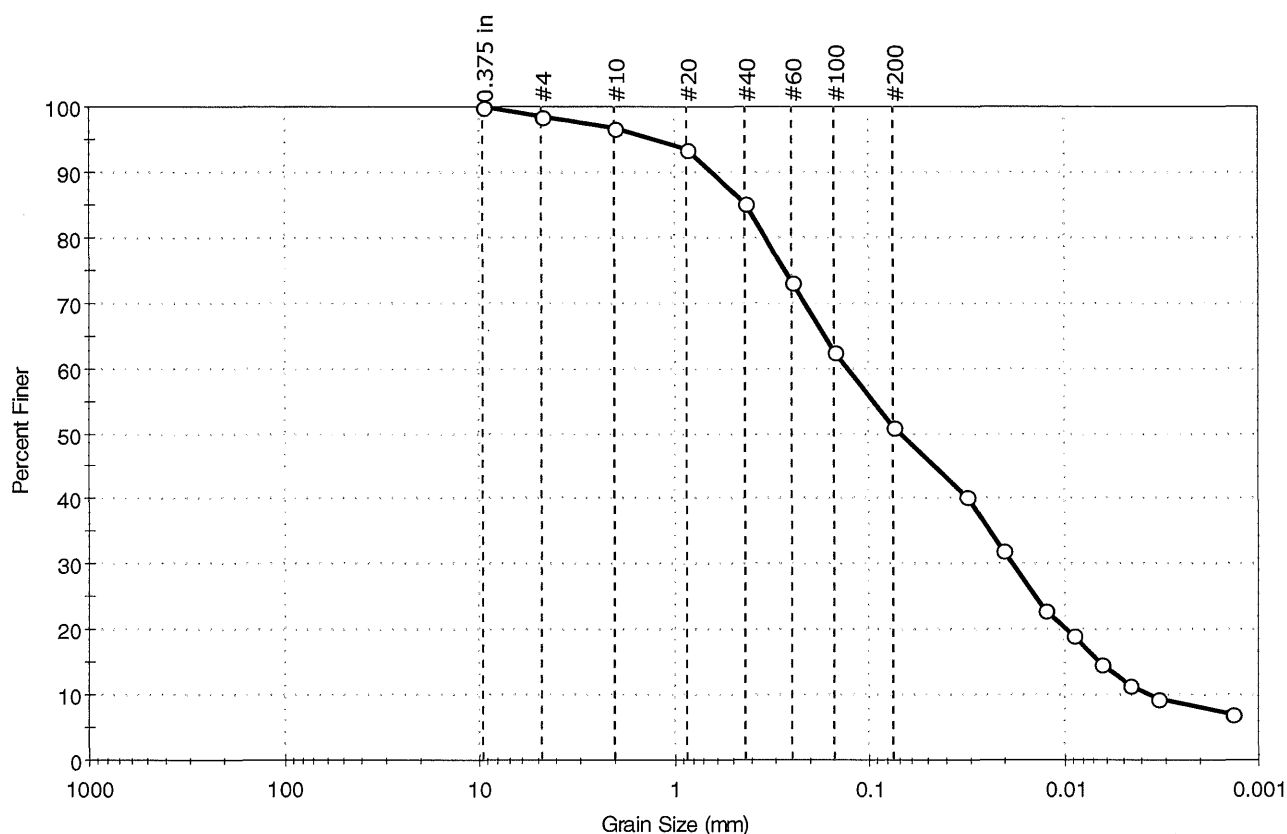
### FLOW DATA

| Date | Trial # | Pressure, psi |        | Manometer Readings |                |                                | Elapsed Time, sec | Gradient | Permeability K, cm/sec | Temp, °C | R <sub>t</sub> | Permeability K @ 20 °C, cm/sec |
|------|---------|---------------|--------|--------------------|----------------|--------------------------------|-------------------|----------|------------------------|----------|----------------|--------------------------------|
|      |         | Cell          | Sample | Z <sub>1</sub>     | Z <sub>2</sub> | Z <sub>1</sub> -Z <sub>2</sub> |                   |          |                        |          |                |                                |
| 9/7  | 1       | 90            | 85     | 12.0               | 11.9           | 0.1                            | 35                | 27.8     | 8.5E-08                | 20       | 1.000          | 8.5E-08                        |
| 9/7  | 2       | 90            | 85     | 12.0               | 11.9           | 0.1                            | 37                | 27.8     | 8.0E-08                | 20       | 1.000          | 8.0E-08                        |
| 9/7  | 3       | 90            | 85     | 12.0               | 11.9           | 0.1                            | 41                | 27.8     | 7.2E-08                | 20       | 1.000          | 7.2E-08                        |
| 9/7  | 4       | 90            | 85     | 12.0               | 11.9           | 0.1                            | 42                | 27.8     | 7.0E-08                | 20       | 1.000          | 7.0E-08                        |

**PERMEABILITY AT 20° C:  $7.7 \times 10^{-8}$  cm/sec (@ 5 psi effective stress)**

|                                                                          |                       |
|--------------------------------------------------------------------------|-----------------------|
| Client: Moretrench American Corp.                                        | Project No: GTX-11659 |
| Project: Shepley Landfill                                                |                       |
| Location: Devens, MA                                                     |                       |
| Boring ID: ---                                                           | Sample Type: bag      |
| Sample ID: BFM-18                                                        | Test Date: 09/07/12   |
| Depth: ---                                                               | Test Id: 248848       |
| Test Comment: ---                                                        | Tested By: jbr        |
| Sample Description: Wet, yellowish brown sandy clay (soil-bentonite mix) | Checked By: jdt       |
| Sample Comment: ---                                                      |                       |

## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
|----------|----------|--------|--------------------|
| ---      | 1.6      | 47.3   | 51.1               |

| Sieve Name | Sieve Size, mm     | Percent Finer | Spec. Percent | Complies |
|------------|--------------------|---------------|---------------|----------|
| 0.375 in   | 9.50               | 100           |               |          |
| #4         | 4.75               | 98            |               |          |
| #10        | 2.00               | 97            |               |          |
| #20        | 0.85               | 93            |               |          |
| #40        | 0.42               | 85            |               |          |
| #60        | 0.25               | 73            |               |          |
| #100       | 0.15               | 62            |               |          |
| #200       | 0.075              | 51            |               |          |
| ---        | Particle Size (mm) | Percent Finer | Spec. Percent | Complies |
| ---        | 0.0316             | 41            |               |          |
| ---        | 0.0208             | 32            |               |          |
| ---        | 0.0125             | 23            |               |          |
| ---        | 0.0090             | 19            |               |          |
| ---        | 0.0065             | 15            |               |          |
| ---        | 0.0046             | 12            |               |          |
| ---        | 0.0033             | 9             |               |          |
| ---        | 0.0014             | 7             |               |          |

| Coefficients                |                             |
|-----------------------------|-----------------------------|
| D <sub>85</sub> = 0.4209 mm | D <sub>30</sub> = 0.0184 mm |
| D <sub>60</sub> = 0.1294 mm | D <sub>15</sub> = 0.0066 mm |
| D <sub>50</sub> = 0.0685 mm | D <sub>10</sub> = 0.0037 mm |
| C <sub>u</sub> = N/A        | C <sub>c</sub> = N/A        |

| Classification |                       |
|----------------|-----------------------|
| ASTM           | N/A                   |
| AASHTO         | Silty Soils (A-4 (0)) |

| Sample/Test Description          |
|----------------------------------|
| Sand/Gravel Particle Shape : --- |
| Sand/Gravel Hardness : ---       |



|                     |                                                      |             |     |
|---------------------|------------------------------------------------------|-------------|-----|
| Client:             | Moretrench American Corp.                            |             |     |
| Project Name:       | Shepley Landfill                                     |             |     |
| Project Location:   | Devens, MA                                           |             |     |
| GTX #:              | 11659                                                |             |     |
| Start Date:         | 9/6/2012                                             | Tested By:  | ema |
| End Date:           | 9/10/2012                                            | Checked By: | jdt |
| Boring #:           | ---                                                  |             |     |
| Sample #:           | BFM-18                                               |             |     |
| Depth:              | ---                                                  |             |     |
| Visual Description: | Wet, yellowish brown sandy clay (soil-bentonite mix) |             |     |

## Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter by ASTM D 5084 Constant Volume

Sample Type: Remolded      Permeant Fluid: De-aired Distilled water  
 Orientation: Vertical      Cell #: 2/2/4  
 Sample Preparation: Test specimen compacted with moderate effort at the as-received moisture content . Trimmings moisture content = 31.6%

| Parameter               | Initial | Final |
|-------------------------|---------|-------|
| Height, in              | 2.63    | 2.31  |
| Diameter, in            | 2.85    | 2.67  |
| Area, in <sup>2</sup>   | 6.38    | 5.60  |
| Volume, in <sup>3</sup> | 16.8    | 12.9  |
| Mass, g                 | 488     | 458   |
| Bulk Density, pcf       | 111     | 135   |
| Moisture Content, %     | 25.9    | 18.2  |
| Dry Density, pcf        | 87.8    | 114   |
| Degree of Saturation, % | ---     | 96    |

### B COEFFICIENT DETERMINATION

Cell Pressure, psi: 95.1      Pressure Increment, psi: 5.06  
 Sample Pressure, psi: 90.2      B Coefficient: 0.97

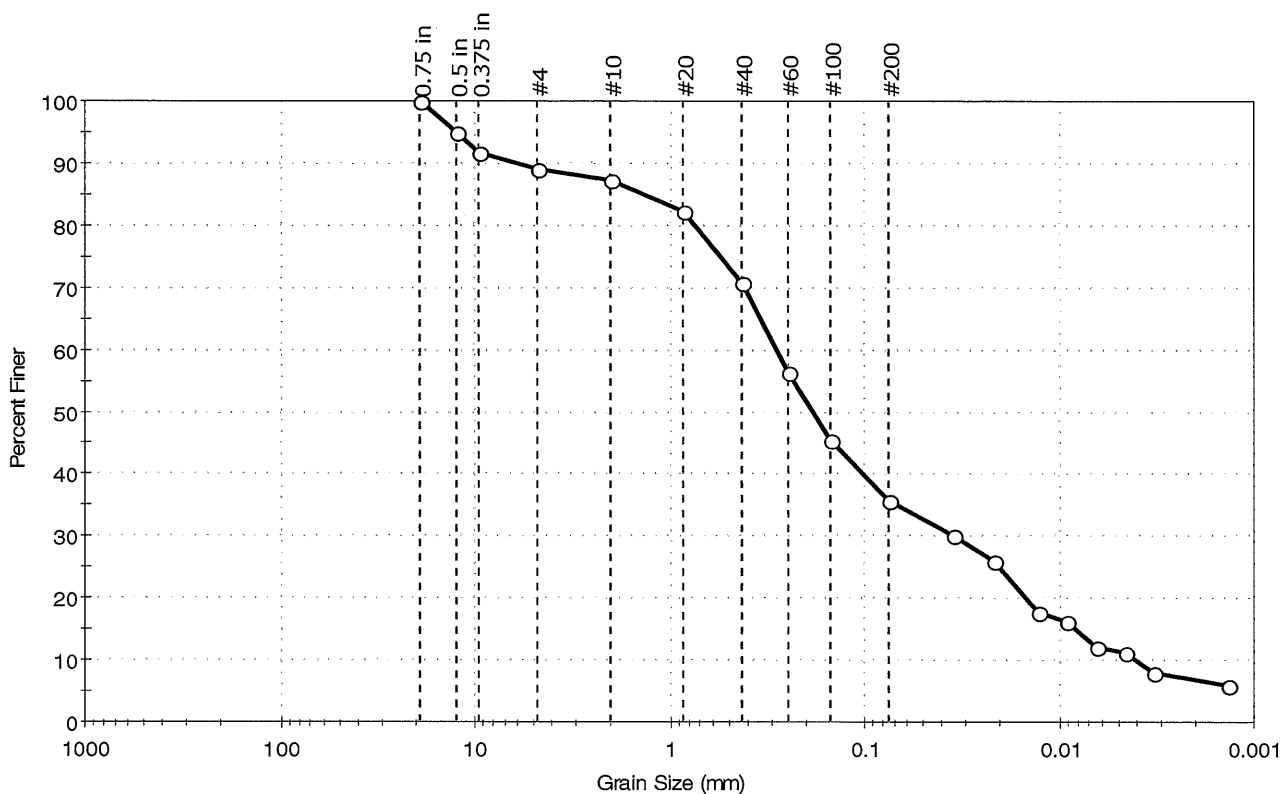
### FLOW DATA

| Date | Trial # | Pressure, psi |        | Manometer Readings |                |                                | Elapsed Time, sec | Gradient | Permeability K, cm/sec | Temp, °C | R <sub>t</sub> | Permeability K @ 20 °C, cm/sec |
|------|---------|---------------|--------|--------------------|----------------|--------------------------------|-------------------|----------|------------------------|----------|----------------|--------------------------------|
|      |         | Cell          | Sample | Z <sub>1</sub>     | Z <sub>2</sub> | Z <sub>1</sub> -Z <sub>2</sub> |                   |          |                        |          |                |                                |
| 9/7  | 5       | 90            | 85     | 12.0               | 11.9           | 0.1                            | 32                | 25.8     | 1.1E-07                | 20       | 1.000          | 1.1E-07                        |
| 9/7  | 6       | 90            | 85     | 12.0               | 11.9           | 0.1                            | 36                | 25.8     | 9.4E-08                | 20       | 1.000          | 9.4E-08                        |
| 9/7  | 7       | 90            | 85     | 12.0               | 11.9           | 0.1                            | 38                | 25.8     | 8.9E-08                | 20       | 1.000          | 8.9E-08                        |
| 9/7  | 8       | 90            | 85     | 12.0               | 11.9           | 0.1                            | 40                | 25.8     | 8.5E-08                | 20       | 1.000          | 8.5E-08                        |

**PERMEABILITY AT 20° C:  $9.4 \times 10^{-8}$  cm/sec (@ 5 psi effective stress)**

|                                                                           |                       |
|---------------------------------------------------------------------------|-----------------------|
| Client: Moretrench American Corp.                                         | Project No: GTX-11659 |
| Project: Shepley Landfill                                                 | Tested By: jbr        |
| Location: Devens, MA                                                      | Checked By: jdt       |
| Boring ID: ---                                                            | Sample Type: bag      |
| Sample ID: BFM-20                                                         | Test Date: 09/06/12   |
| Depth: ---                                                                | Test Id: 248849       |
| Test Comment: ---                                                         |                       |
| Sample Description: Wet, yellowish brown clayey sand (soil-bentonite mix) |                       |
| Sample Comment: ---                                                       |                       |

## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
|----------|----------|--------|--------------------|
| ---      | 10.9     | 53.5   | 35.6               |

| Sieve Name | Sieve Size, mm     | Percent Finer | Spec. Percent | Complies |
|------------|--------------------|---------------|---------------|----------|
| 0.75 in    | 19.00              | 100           |               |          |
| 0.5 in     | 12.50              | 95            |               |          |
| 0.375 in   | 9.50               | 92            |               |          |
| #4         | 4.75               | 89            |               |          |
| #10        | 2.00               | 87            |               |          |
| #20        | 0.85               | 82            |               |          |
| #40        | 0.42               | 71            |               |          |
| #60        | 0.25               | 56            |               |          |
| #100       | 0.15               | 46            |               |          |
| #200       | 0.075              | 36            |               |          |
| ---        | Particle Size (mm) | Percent Finer | Spec. Percent | Complies |
| ---        | 0.0347             | 30            |               |          |
| ---        | 0.0216             | 26            |               |          |
| ---        | 0.0128             | 18            |               |          |
| ---        | 0.0091             | 16            |               |          |
| ---        | 0.0065             | 12            |               |          |
| ---        | 0.0046             | 11            |               |          |
| ---        | 0.0033             | 8             |               |          |
| ---        | 0.0014             | 6             |               |          |

| Coefficients                |                             |
|-----------------------------|-----------------------------|
| D <sub>85</sub> = 1.3216 mm | D <sub>30</sub> = 0.0340 mm |
| D <sub>60</sub> = 0.2873 mm | D <sub>15</sub> = 0.0083 mm |
| D <sub>50</sub> = 0.1858 mm | D <sub>10</sub> = 0.0040 mm |
| C <sub>u</sub> = N/A        | C <sub>c</sub> = N/A        |

| Classification |                       |
|----------------|-----------------------|
| ASTM           | N/A                   |
| AASHTO         | Silty Soils (A-4 (0)) |

| Sample/Test Description      |         |
|------------------------------|---------|
| Sand/Gravel Particle Shape : | ROUNDED |
| Sand/Gravel Hardness :       | HARD    |



|                     |                                                       |             |     |
|---------------------|-------------------------------------------------------|-------------|-----|
| Client:             | Moretrench American Corp.                             |             |     |
| Project Name:       | Shepley Landfill                                      |             |     |
| Project Location:   | Devens, MA                                            |             |     |
| GTX #:              | 11659                                                 |             |     |
| Start Date:         | 9/6/2012                                              | Tested By:  | ema |
| End Date:           | 9/10/2012                                             | Checked By: | jdt |
| Boring #:           | ---                                                   |             |     |
| Sample #:           | BFM-20                                                |             |     |
| Depth:              | ---                                                   |             |     |
| Visual Description: | Wet, yellowish brown clayey sand (soil-bentonite mix) |             |     |

## Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter by ASTM D 5084 Constant Volume

Sample Type: Remolded      Permeant Fluid: De-aired Distilled water  
 Orientation: Vertical      Cell #: 3/9  
 Sample Preparation: Test specimen compacted with moderate effort at the as-received moisture content . Trimmings moisture content = 26.3%

| Parameter               | Initial | Final |
|-------------------------|---------|-------|
| Height, in              | 2.43    | 2.32  |
| Diameter, in            | 2.85    | 2.75  |
| Area, in <sup>2</sup>   | 6.38    | 5.94  |
| Volume, in <sup>3</sup> | 15.5    | 13.8  |
| Mass, g                 | 481     | 458   |
| Bulk Density, pcf       | 118     | 126   |
| Moisture Content, %     | 28.6    | 22.5  |
| Dry Density, pcf        | 91.7    | 103   |
| Degree of Saturation, % | ---     | 96    |

### B COEFFICIENT DETERMINATION

Cell Pressure, psi: 95.3      Pressure Increment, psi: 5.04  
 Sample Pressure, psi: 90.2      B Coefficient: 0.99

### FLOW DATA

| Date | Trial # | Pressure, psi |        | Manometer Readings |                |                                | Elapsed Time, sec | Gradient | Permeability K, cm/sec | Temp, °C | R <sub>t</sub> | Permeability K @ 20 °C, cm/sec |
|------|---------|---------------|--------|--------------------|----------------|--------------------------------|-------------------|----------|------------------------|----------|----------------|--------------------------------|
|      |         | Cell          | Sample | Z <sub>1</sub>     | Z <sub>2</sub> | Z <sub>1</sub> -Z <sub>2</sub> |                   |          |                        |          |                |                                |
| 9/7  | 1       | 90            | 85     | 12.0               | 11.9           | 0.1                            | 35                | 25.7     | 9.2E-08                | 20       | 1.000          | 9.2E-08                        |
| 9/7  | 2       | 90            | 85     | 12.0               | 11.9           | 0.1                            | 35                | 25.7     | 9.2E-08                | 20       | 1.000          | 9.2E-08                        |
| 9/7  | 3       | 90            | 85     | 12.0               | 11.9           | 0.1                            | 36                | 25.7     | 8.9E-08                | 20       | 1.000          | 8.9E-08                        |
| 9/7  | 4       | 90            | 85     | 12.0               | 11.9           | 0.1                            | 37                | 25.7     | 8.7E-08                | 20       | 1.000          | 8.7E-08                        |

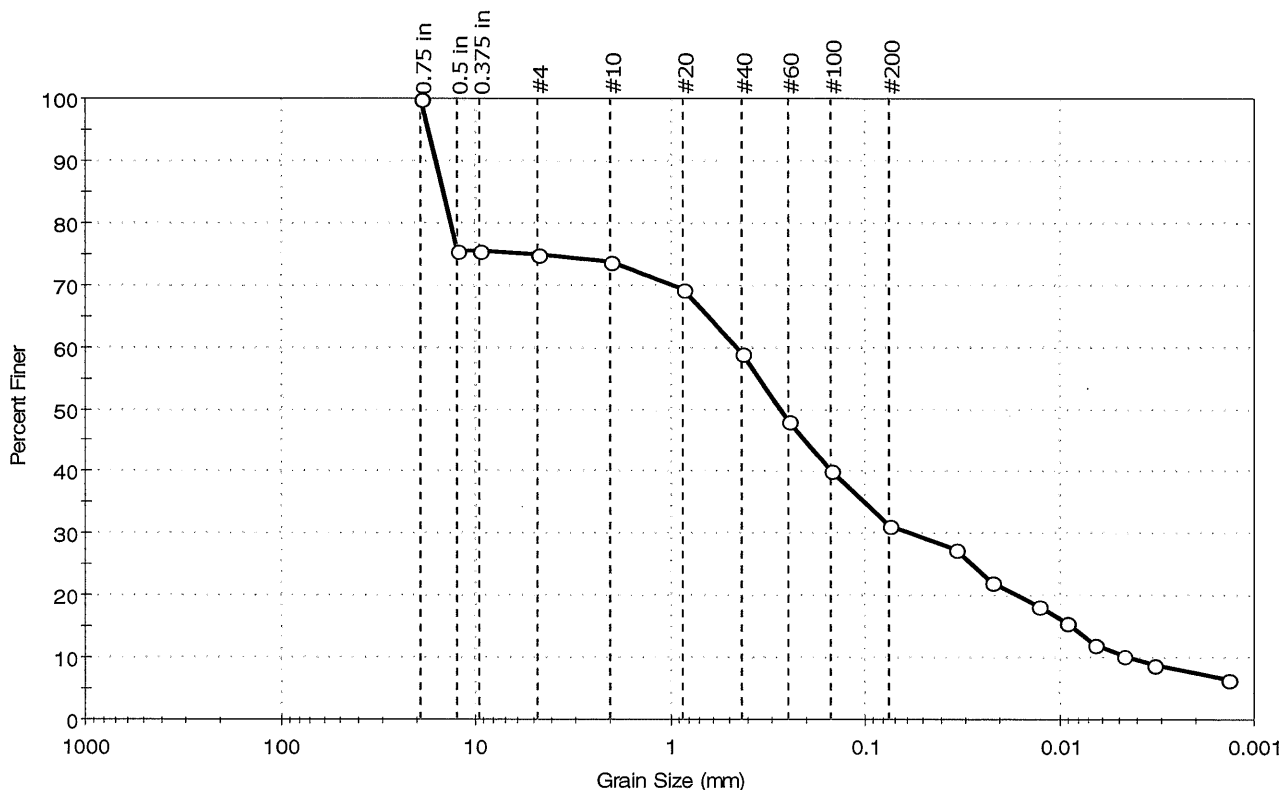
**PERMEABILITY AT 20° C:  $9.0 \times 10^{-8}$  cm/sec (@ 5 psi effective stress)**





|                     |                                                                     |              |           |
|---------------------|---------------------------------------------------------------------|--------------|-----------|
| Client:             | Moretrench American Corp.                                           | Project No:  | GTX-11659 |
| Project:            | Shepley Landfill                                                    | Sample Type: | bag       |
| Location:           | Devens, MA                                                          | Tested By:   | jbr       |
| Boring ID:          | ---                                                                 | Test Date:   | 09/07/12  |
| Sample ID:          | BFM-21                                                              | Checked By:  | jdt       |
| Depth :             | ---                                                                 | Test Id:     | 248850    |
| Test Comment:       | ---                                                                 |              |           |
| Sample Description: | Moist, yellowish brown clayey sand with gravel (soil-bentonite mix) |              |           |
| Sample Comment:     | ---                                                                 |              |           |

## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
|----------|----------|--------|--------------------|
| ---      | 25.1     | 43.5   | 31.4               |

| Sieve Name | Sieve Size, mm     | Percent Finer | Spec. Percent | Complies |
|------------|--------------------|---------------|---------------|----------|
| 0.75 in    | 19.00              | 100           |               |          |
| 0.5 in     | 12.50              | 76            |               |          |
| 0.375 in   | 9.50               | 76            |               |          |
| #4         | 4.75               | 75            |               |          |
| #10        | 2.00               | 74            |               |          |
| #20        | 0.85               | 69            |               |          |
| #40        | 0.42               | 59            |               |          |
| #60        | 0.25               | 48            |               |          |
| #100       | 0.15               | 40            |               |          |
| #200       | 0.075              | 31            |               |          |
| ---        | Particle Size (mm) | Percent Finer | Spec. Percent | Complies |
| ---        | 0.0342             | 28            |               |          |
| ---        | 0.0220             | 22            |               |          |
| ---        | 0.0129             | 18            |               |          |
| ---        | 0.0092             | 16            |               |          |
| ---        | 0.0066             | 12            |               |          |
| ---        | 0.0047             | 10            |               |          |
| ---        | 0.0033             | 9             |               |          |
| ---        | 0.0014             | 7             |               |          |

### Coefficients

|                              |                             |
|------------------------------|-----------------------------|
| D <sub>85</sub> = 14.6863 mm | D <sub>30</sub> = 0.0565 mm |
| D <sub>60</sub> = 0.4531 mm  | D <sub>15</sub> = 0.0086 mm |
| D <sub>50</sub> = 0.2758 mm  | D <sub>10</sub> = 0.0044 mm |
| C <sub>u</sub> = N/A         | C <sub>c</sub> = N/A        |

### Classification

|        |                                   |
|--------|-----------------------------------|
| ASTM   | N/A                               |
| AASHTO | Silty Gravel and Sand (A-2-4 (0)) |

### Sample/Test Description

Sand/Gravel Particle Shape : **ROUNDED**  
Sand/Gravel Hardness : **HARD**



|                     |                                                                   |             |     |
|---------------------|-------------------------------------------------------------------|-------------|-----|
| Client:             | Moretrench American Corp.                                         |             |     |
| Project Name:       | Shepley Landfill                                                  |             |     |
| Project Location:   | Devens, MA                                                        |             |     |
| GTX #:              | 11659                                                             |             |     |
| Start Date:         | 9/6/2012                                                          | Tested By:  | ema |
| End Date:           | 9/10/2012                                                         | Checked By: | jdt |
| Boring #:           | ---                                                               |             |     |
| Sample #:           | BFM-21                                                            |             |     |
| Depth:              | ---                                                               |             |     |
| Visual Description: | Wet, yellowish brown clayey sand with gravel (soil-bentonite mix) |             |     |

## Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter by ASTM D 5084 Constant Volume

Sample Type: Remolded      Permeant Fluid: De-aired Distilled water  
 Orientation: Vertical      Cell #: 12/2  
 Sample Preparation: Test specimen compacted with moderate effort at the as-received moisture content . Trimmings moisture content = 29.3%

| Parameter               | Initial | Final |
|-------------------------|---------|-------|
| Height, in              | 2.32    | 2.29  |
| Diameter, in            | 2.85    | 2.65  |
| Area, in <sup>2</sup>   | 6.38    | 5.52  |
| Volume, in <sup>3</sup> | 14.8    | 12.6  |
| Mass, g                 | 459     | 430   |
| Bulk Density, pcf       | 118     | 130   |
| Moisture Content, %     | 30.2    | 22.1  |
| Dry Density, pcf        | 90.5    | 106   |
| Degree of Saturation, % | ---     | 95    |

### B COEFFICIENT DETERMINATION

Cell Pressure, psi: 95.2      Pressure Increment, psi: 5.02  
 Sample Pressure, psi: 90.1      B Coefficient: 0.98

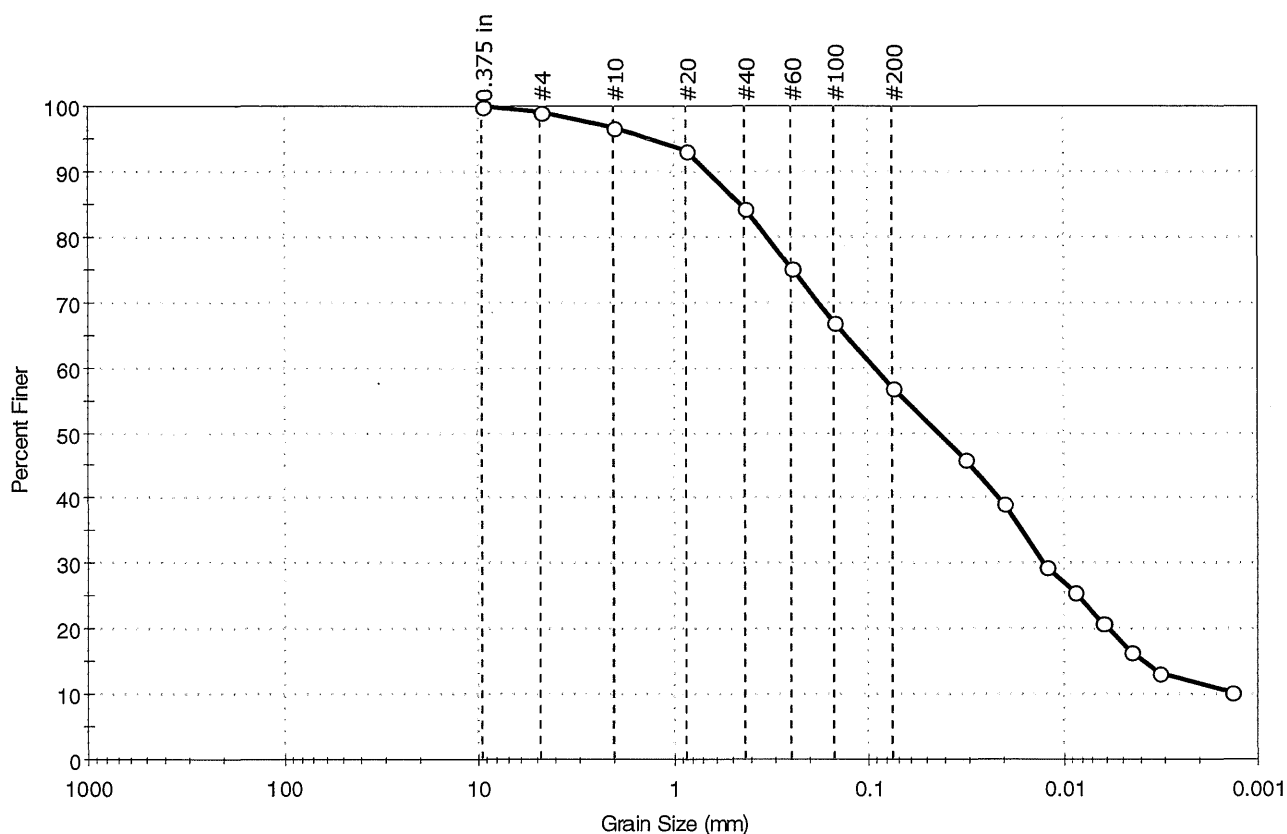
### FLOW DATA

| Date | Trial # | Pressure, psi |        | Manometer Readings |                |                                | Elapsed Time, sec | Gradient | Permeability K, cm/sec | Temp, °C | R <sub>t</sub> | Permeability K @ 20 °C, cm/sec |
|------|---------|---------------|--------|--------------------|----------------|--------------------------------|-------------------|----------|------------------------|----------|----------------|--------------------------------|
|      |         | Cell          | Sample | Z <sub>1</sub>     | Z <sub>2</sub> | Z <sub>1</sub> -Z <sub>2</sub> |                   |          |                        |          |                |                                |
| 9/7  | 2       | 90            | 85     | 12.0               | 11.9           | 0.1                            | 31                | 26.0     | 1.1E-07                | 20       | 1.000          | 1.1E-07                        |
| 9/7  | 3       | 90            | 85     | 12.0               | 11.9           | 0.1                            | 35                | 26.0     | 9.7E-08                | 20       | 1.000          | 9.7E-08                        |
| 9/7  | 4       | 90            | 85     | 12.0               | 11.9           | 0.1                            | 35                | 26.0     | 9.7E-08                | 20       | 1.000          | 9.7E-08                        |
| 9/7  | 5       | 90            | 85     | 12.0               | 11.9           | 0.1                            | 37                | 26.0     | 9.2E-08                | 20       | 1.000          | 9.2E-08                        |

**PERMEABILITY AT 20° C:  $9.9 \times 10^{-8}$  cm/sec (@ 5 psi effective stress)**

|                                                                          |                       |
|--------------------------------------------------------------------------|-----------------------|
| Client: Moretrench American Corp.                                        | Project No: GTX-11659 |
| Project: Shepley Landfill                                                |                       |
| Location: Devens, MA                                                     |                       |
| Boring ID: ---                                                           | Sample Type: bag      |
| Sample ID: BFM-24                                                        | Test Date: 09/07/12   |
| Depth: ---                                                               | Test Id: 248851       |
| Test Comment: ---                                                        | Tested By: jbr        |
| Sample Description: Wet, yellowish brown sandy clay (soil-bentonite mix) | Checked By: jdt       |
| Sample Comment: ---                                                      |                       |

## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
|----------|----------|--------|--------------------|
| ---      | 0.9      | 42.1   | 57.0               |

| Sieve Name | Sieve Size, mm     | Percent Finer | Spec. Percent | Complies |
|------------|--------------------|---------------|---------------|----------|
| 0.375 in   | 9.50               | 100           |               |          |
| #4         | 4.75               | 99            |               |          |
| #10        | 2.00               | 97            |               |          |
| #20        | 0.85               | 93            |               |          |
| #40        | 0.42               | 84            |               |          |
| #60        | 0.25               | 75            |               |          |
| #100       | 0.15               | 67            |               |          |
| #200       | 0.075              | 57            |               |          |
| ---        | Particle Size (mm) | Percent Finer | Spec. Percent | Complies |
| ---        | 0.0319             | 46            |               |          |
| ---        | 0.0204             | 39            |               |          |
| ---        | 0.0123             | 30            |               |          |
| ---        | 0.0088             | 26            |               |          |
| ---        | 0.0063             | 21            |               |          |
| ---        | 0.0045             | 17            |               |          |
| ---        | 0.0032             | 13            |               |          |
| ---        | 0.0014             | 10            |               |          |

### Coefficients

|                             |                             |
|-----------------------------|-----------------------------|
| D <sub>85</sub> = 0.4423 mm | D <sub>30</sub> = 0.0126 mm |
| D <sub>60</sub> = 0.0924 mm | D <sub>15</sub> = 0.0038 mm |
| D <sub>50</sub> = 0.0433 mm | D <sub>10</sub> = 0.0012 mm |
| C <sub>u</sub> = N/A        | C <sub>c</sub> = N/A        |

### Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

### Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---



|                     |                                                      |             |     |
|---------------------|------------------------------------------------------|-------------|-----|
| Client:             | Moretrench American Corp.                            |             |     |
| Project Name:       | Shepley Landfill                                     |             |     |
| Project Location:   | Devens, MA                                           |             |     |
| GTX #:              | 11659                                                |             |     |
| Start Date:         | 9/6/2012                                             | Tested By:  | ema |
| End Date:           | 9/12/2012                                            | Checked By: | jdt |
| Boring #:           | ---                                                  |             |     |
| Sample #:           | BFM-24                                               |             |     |
| Depth:              | ---                                                  |             |     |
| Visual Description: | Wet, yellowish brown sandy clay (soil-bentonite mix) |             |     |

## Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter by ASTM D 5084 Constant Volume

Sample Type: Remolded      Permeant Fluid: De-aired Distilled water  
 Orientation: Vertical      Cell #: 19/4/5  
 Sample Preparation: Test specimen compacted with moderate effort at the as-received moisture content . Trimmings moisture content = 29%

| Parameter               | Initial | Final |
|-------------------------|---------|-------|
| Height, in              | 2.45    | 2.43  |
| Diameter, in            | 2.85    | 2.72  |
| Area, in <sup>2</sup>   | 6.38    | 5.81  |
| Volume, in <sup>3</sup> | 15.6    | 14.1  |
| Mass, g                 | 494     | 470   |
| Bulk Density, pcf       | 120     | 127   |
| Moisture Content, %     | 31.1    | 24.8  |
| Dry Density, pcf        | 91.7    | 101   |
| Degree of Saturation, % | ---     | 96    |

### B COEFFICIENT DETERMINATION

Cell Pressure, psi: 95.1      Pressure Increment, psi: 5.05  
 Sample Pressure, psi: 85.2      B Coefficient: 0.97

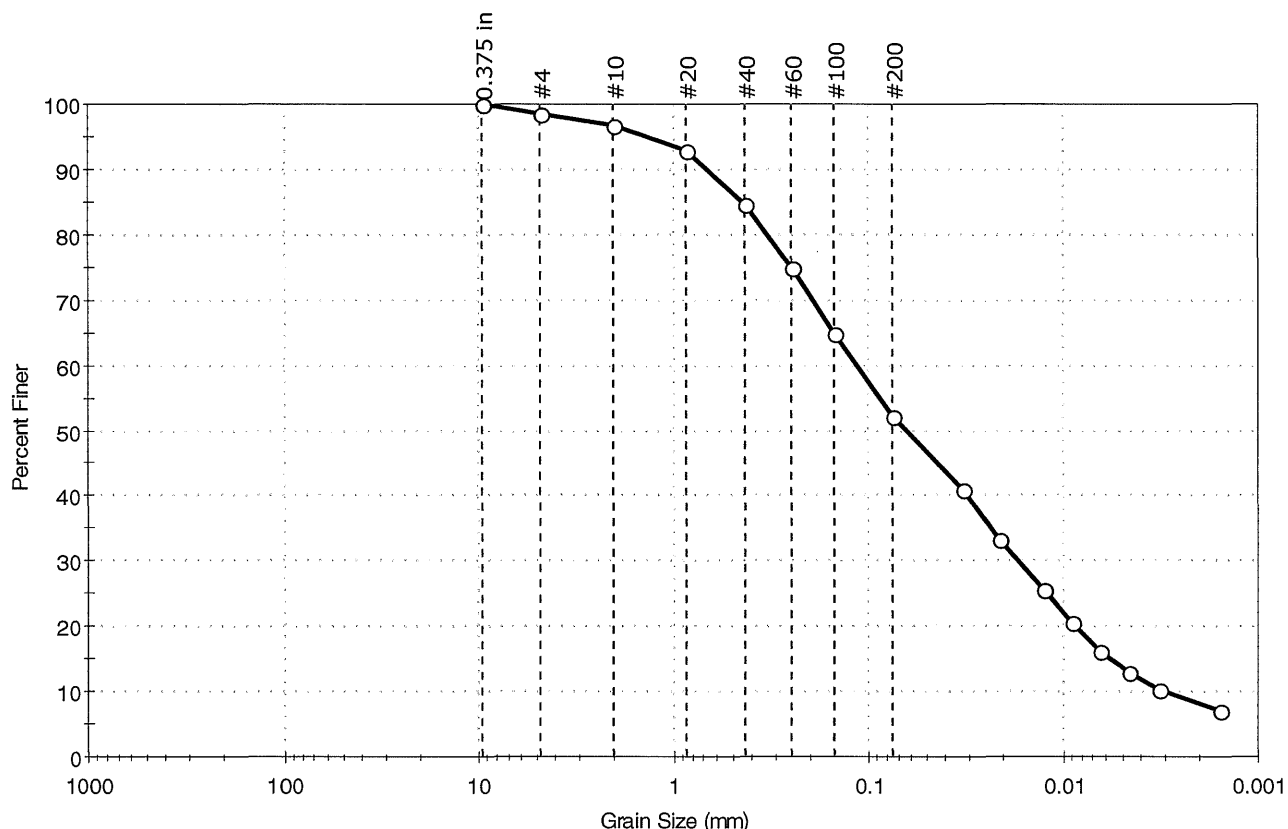
### FLOW DATA

| Date | Trial # | Pressure, psi |        | Manometer Readings |                |                                | Elapsed Time, sec | Gradient | Permeability K, cm/sec | Temp, °C | R <sub>t</sub> | Permeability K @ 20 °C, cm/sec |
|------|---------|---------------|--------|--------------------|----------------|--------------------------------|-------------------|----------|------------------------|----------|----------------|--------------------------------|
|      |         | Cell          | Sample | Z <sub>1</sub>     | Z <sub>2</sub> | Z <sub>1</sub> -Z <sub>2</sub> |                   |          |                        |          |                |                                |
| 9/11 | 1       | 90            | 85     | 12.0               | 11.8           | 0.2                            | 69                | 24.5     | 1.0E-07                | 20       | 1.000          | 1.0E-07                        |
| 9/11 | 2       | 90            | 85     | 12.0               | 11.8           | 0.2                            | 71                | 24.5     | 9.7E-08                | 20       | 1.000          | 9.7E-08                        |
| 9/11 | 3       | 90            | 85     | 12.0               | 11.8           | 0.2                            | 71                | 24.5     | 9.7E-08                | 20       | 1.000          | 9.7E-08                        |
| 9/11 | 4       | 90            | 85     | 12.0               | 11.8           | 0.2                            | 72                | 24.5     | 9.6E-08                | 20       | 1.000          | 9.6E-08                        |

**PERMEABILITY AT 20° C:  $9.8 \times 10^{-8}$  cm/sec (@ 5 psi effective stress)**

|                                                                            |                       |
|----------------------------------------------------------------------------|-----------------------|
| Client: Moretrench American Corp.                                          | Project No: GTX-11659 |
| Project: Shepley Landfill                                                  |                       |
| Location: Devens, MA                                                       |                       |
| Boring ID: ---                                                             | Sample Type: bag      |
| Sample ID: BFM-25                                                          | Test Date: 09/18/12   |
| Depth: ---                                                                 | Test Id: 249682       |
| Test Comment: ---                                                          | Tested By: jbr        |
| Sample Description: Moist, yellowish brown sandy clay (soil-bentonite mix) | Checked By: jdt       |
| Sample Comment: ---                                                        |                       |

## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
|----------|----------|--------|--------------------|
| ---      | 1.3      | 46.5   | 52.2               |

| Sieve Name | Sieve Size, mm     | Percent Finer | Spec. Percent | Complies |
|------------|--------------------|---------------|---------------|----------|
| 0.375 in   | 9.50               | 100           |               |          |
| #4         | 4.75               | 99            |               |          |
| #10        | 2.00               | 97            |               |          |
| #20        | 0.85               | 93            |               |          |
| #40        | 0.42               | 85            |               |          |
| #60        | 0.25               | 75            |               |          |
| #100       | 0.15               | 65            |               |          |
| #200       | 0.075              | 52            |               |          |
| ---        | Particle Size (mm) | Percent Finer | Spec. Percent | Complies |
| ---        | 0.0327             | 41            |               |          |
| ---        | 0.0211             | 33            |               |          |
| ---        | 0.0124             | 26            |               |          |
| ---        | 0.0090             | 21            |               |          |
| ---        | 0.0064             | 16            |               |          |
| ---        | 0.0046             | 13            |               |          |
| ---        | 0.0033             | 10            |               |          |
| ---        | 0.0016             | 7             |               |          |

### Coefficients

|                             |                             |
|-----------------------------|-----------------------------|
| D <sub>85</sub> = 0.4376 mm | D <sub>30</sub> = 0.0168 mm |
| D <sub>60</sub> = 0.1145 mm | D <sub>15</sub> = 0.0056 mm |
| D <sub>50</sub> = 0.0638 mm | D <sub>10</sub> = 0.0030 mm |
| C <sub>u</sub> = N/A        | C <sub>c</sub> = N/A        |

### Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

### Sample/Test Description

Sand/Gravel Particle Shape: ---

Sand/Gravel Hardness: ---



|                     |                                                        |             |     |
|---------------------|--------------------------------------------------------|-------------|-----|
| Client:             | Moretrench American Corp.                              |             |     |
| Project Name:       | Shepley Landfill                                       |             |     |
| Project Location:   | Devens, MA                                             |             |     |
| GTX #:              | 11659                                                  |             |     |
| Start Date:         | 9/18/2012                                              | Tested By:  | ema |
| End Date:           | 9/20/2012                                              | Checked By: | jdt |
| Boring #:           | ---                                                    |             |     |
| Sample #:           | BFM-25                                                 |             |     |
| Depth:              | ---                                                    |             |     |
| Visual Description: | Moist, yellowish brown sandy clay (soil-bentonite mix) |             |     |

## Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter by ASTM D 5084 Constant Volume

|                     |                                                                                                                       |                 |                          |
|---------------------|-----------------------------------------------------------------------------------------------------------------------|-----------------|--------------------------|
| Sample Type:        | Remolded                                                                                                              | Permeant Fluid: | De-aired Distilled water |
| Orientation:        | Vertical                                                                                                              | Cell #:         | 2/2/4                    |
| Sample Preparation: | Test specimen compacted with moderate effort at the as-received moisture content . Trimmings moisture content = 29.8% |                 |                          |

| Parameter               | Initial | Final |
|-------------------------|---------|-------|
| Height, in              | 2.30    | 2.21  |
| Diameter, in            | 2.85    | 2.78  |
| Area, in <sup>2</sup>   | 6.38    | 6.07  |
| Volume, in <sup>3</sup> | 14.7    | 13.4  |
| Mass, g                 | 463     | 439   |
| Bulk Density, pcf       | 120     | 124   |
| Moisture Content, %     | 29.9    | 23.2  |
| Dry Density, pcf        | 92.3    | 101   |
| Degree of Saturation, % | ---     | 96    |

### B COEFFICIENT DETERMINATION

|                       |      |                          |      |
|-----------------------|------|--------------------------|------|
| Cell Pressure, psi:   | 95.2 | Pressure Increment, psi: | 4.97 |
| Sample Pressure, psi: | 90.0 | B Coefficient:           | 0.97 |

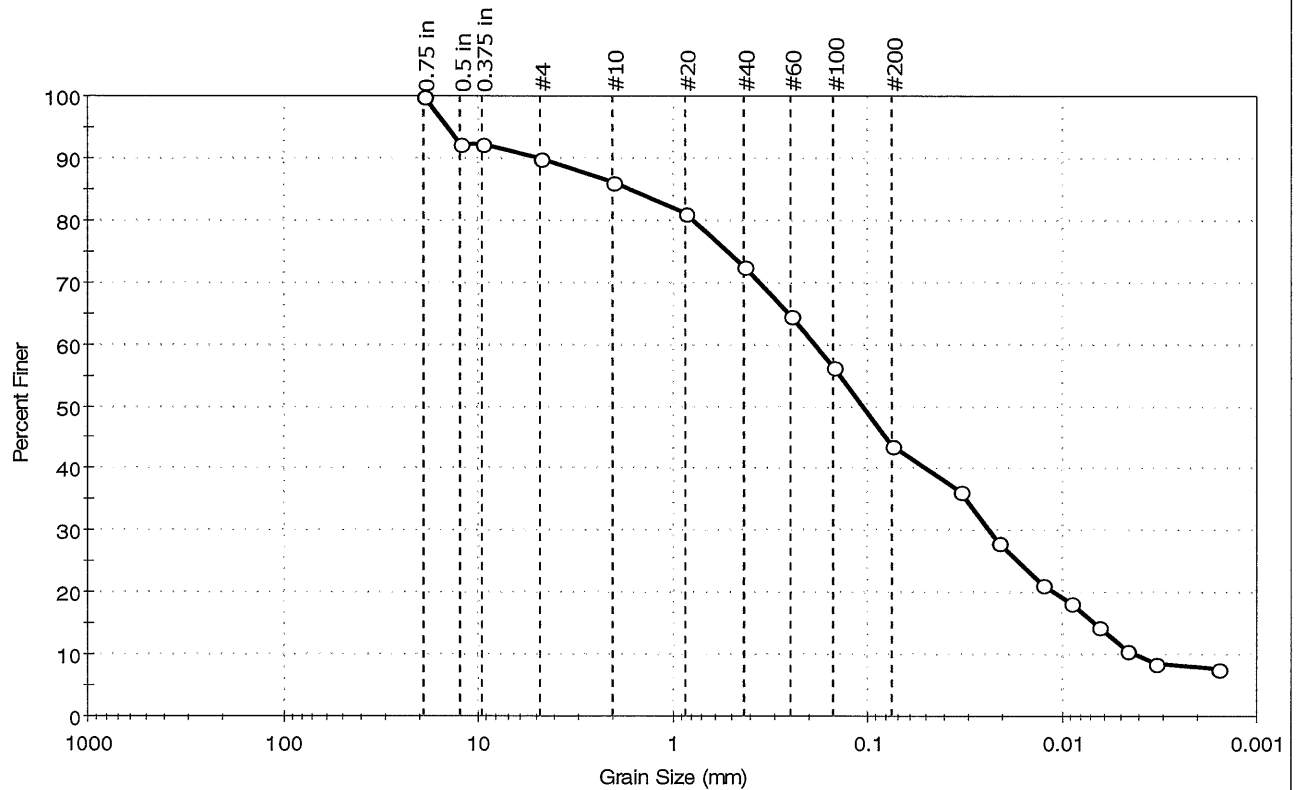
### FLOW DATA

| Date | Trial # | Pressure, psi |        | Manometer Readings |                |                                | Elapsed Time, sec | Gradient | Permeability K, cm/sec | Temp, °C | R <sub>t</sub> | Permeability K @ 20 °C, cm/sec |
|------|---------|---------------|--------|--------------------|----------------|--------------------------------|-------------------|----------|------------------------|----------|----------------|--------------------------------|
|      |         | Cell          | Sample | Z <sub>1</sub>     | Z <sub>2</sub> | Z <sub>1</sub> -Z <sub>2</sub> |                   |          |                        |          |                |                                |
| 9/19 | 1       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 74                | 22.4     | 4.9E-08                | 20       | 1.000          | 4.9E-08                        |
| 9/19 | 2       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 74                | 22.4     | 4.9E-08                | 20       | 1.000          | 4.9E-08                        |
| 9/19 | 3       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 75                | 22.4     | 4.8E-08                | 20       | 1.000          | 4.8E-08                        |
| 9/19 | 4       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 79                | 22.4     | 4.5E-08                | 20       | 1.000          | 4.5E-08                        |

**PERMEABILITY AT 20° C:  $4.8 \times 10^{-8}$  cm/sec (@ 5 psi effective stress)**

|                                                                             |                       |
|-----------------------------------------------------------------------------|-----------------------|
| Client: Moretrench American Corp.                                           | Project No: GTX-11659 |
| Project: Shepley Landfill                                                   |                       |
| Location: Devens, MA                                                        |                       |
| Boring ID: ---                                                              | Sample Type: bag      |
| Sample ID: BFM-27                                                           | Test Date: 09/18/12   |
| Depth: ---                                                                  | Test Id: 249683       |
| Test Comment: ---                                                           | Tested By: jbr        |
| Sample Description: Moist, yellowish brown clayey sand (soil-bentonite mix) | Checked By: jdt       |
| Sample Comment: ---                                                         |                       |

## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
|----------|----------|--------|--------------------|
| ---      | 10.1     | 46.2   | 43.7               |

| Sieve Name | Sieve Size, mm     | Percent Finer | Spec. Percent | Complies |
|------------|--------------------|---------------|---------------|----------|
| 0.75 in    | 19.00              | 100           |               |          |
| 0.5 in     | 12.50              | 92            |               |          |
| 0.375 in   | 9.50               | 92            |               |          |
| #4         | 4.75               | 90            |               |          |
| #10        | 2.00               | 86            |               |          |
| #20        | 0.85               | 81            |               |          |
| #40        | 0.425              | 73            |               |          |
| #60        | 0.25               | 65            |               |          |
| #100       | 0.15               | 56            |               |          |
| #200       | 0.075              | 44            |               |          |
| ---        | Particle Size (mm) | Percent Finer | Spec. Percent | Complies |
| ---        | 0.0334             | 36            |               |          |
| ---        | 0.0213             | 28            |               |          |
| ---        | 0.0126             | 21            |               |          |
| ---        | 0.0090             | 18            |               |          |
| ---        | 0.0064             | 14            |               |          |
| ---        | 0.0046             | 11            |               |          |
| ---        | 0.0033             | 8             |               |          |
| ---        | 0.0016             | 8             |               |          |

### Coefficients

|                             |                             |
|-----------------------------|-----------------------------|
| D <sub>85</sub> = 1.6310 mm | D <sub>30</sub> = 0.0236 mm |
| D <sub>60</sub> = 0.1883 mm | D <sub>15</sub> = 0.0067 mm |
| D <sub>50</sub> = 0.1062 mm | D <sub>10</sub> = 0.0041 mm |
| C <sub>u</sub> = N/A        | C <sub>c</sub> = N/A        |

### Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

### Sample/Test Description

Sand/Gravel Particle Shape : **ROUNDED**  
 Sand/Gravel Hardness : **HARD**



|                     |                                                         |             |     |
|---------------------|---------------------------------------------------------|-------------|-----|
| Client:             | Moretrench American Corp.                               |             |     |
| Project Name:       | Shepley Landfill                                        |             |     |
| Project Location:   | Devens, MA                                              |             |     |
| GTX #:              | 11659                                                   |             |     |
| Start Date:         | 9/18/2012                                               | Tested By:  | ema |
| End Date:           | 9/21/2012                                               | Checked By: | jdt |
| Boring #:           | ---                                                     |             |     |
| Sample #:           | BFM-27                                                  |             |     |
| Depth:              | ---                                                     |             |     |
| Visual Description: | Moist, yellowish brown clayey sand (soil-bentonite mix) |             |     |

## Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter by ASTM D 5084 Constant Volume

|                     |                                                                                                                       |                 |                          |
|---------------------|-----------------------------------------------------------------------------------------------------------------------|-----------------|--------------------------|
| Sample Type:        | Remolded                                                                                                              | Permeant Fluid: | De-aired Distilled water |
| Orientation:        | Vertical                                                                                                              | Cell #:         | 12/2                     |
| Sample Preparation: | Test specimen compacted with moderate effort at the as-received moisture content . Trimmings moisture content = 29.4% |                 |                          |

| Parameter               | Initial | Final |
|-------------------------|---------|-------|
| Height, in              | 2.40    | 2.26  |
| Diameter, in            | 2.85    | 2.69  |
| Area, in <sup>2</sup>   | 6.38    | 5.68  |
| Volume, in <sup>3</sup> | 15.3    | 12.8  |
| Mass, g                 | 456     | 429   |
| Bulk Density, pcf       | 113     | 127   |
| Moisture Content, %     | 28.8    | 21.3  |
| Dry Density, pcf        | 87.9    | 105   |
| Degree of Saturation, % | ---     | 98    |

### B COEFFICIENT DETERMINATION

|                       |      |                          |      |
|-----------------------|------|--------------------------|------|
| Cell Pressure, psi:   | 95.1 | Pressure Increment, psi: | 5.05 |
| Sample Pressure, psi: | 90.1 | B Coefficient:           | 0.97 |

### FLOW DATA

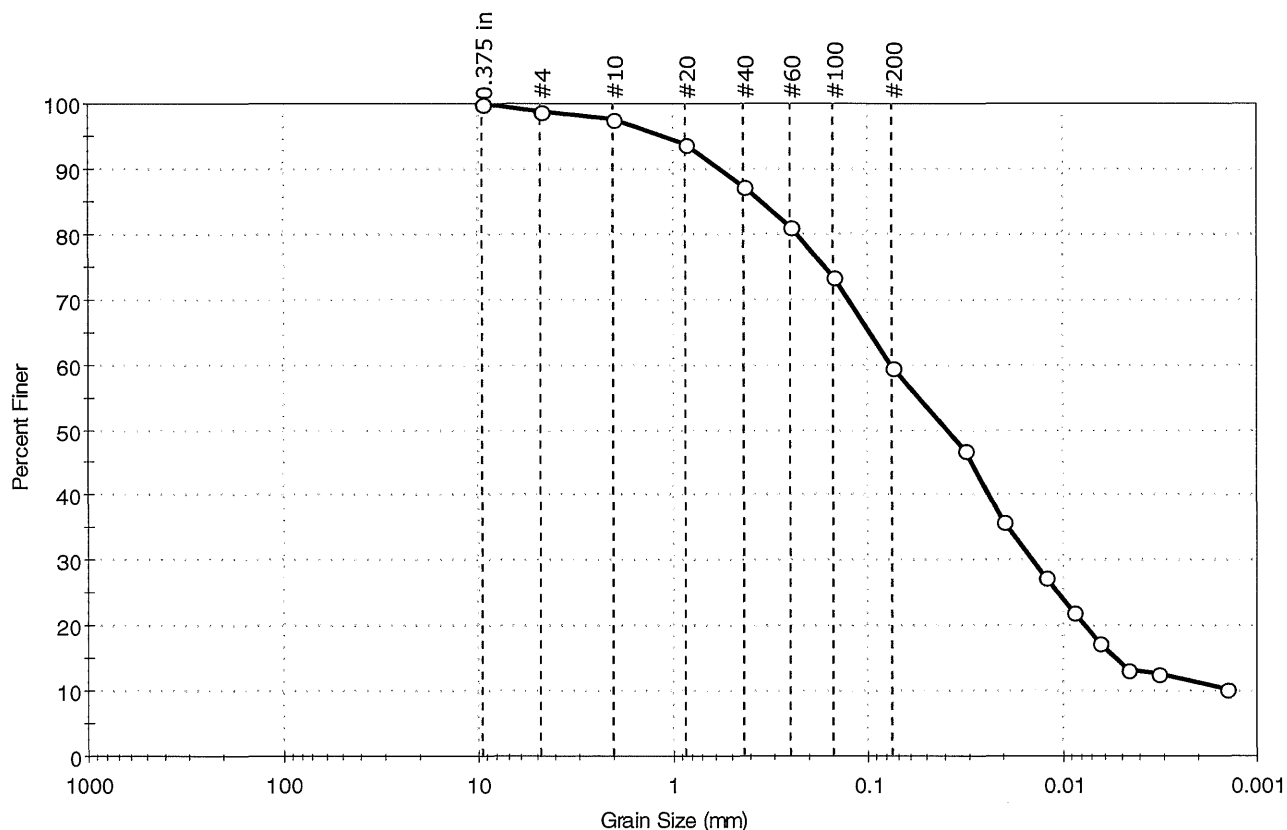
| Date | Trial # | Pressure, psi |        | Manometer Readings |                |                                | Elapsed Time, sec | Gradient | Permeability K, cm/sec | Temp, °C | R <sub>t</sub> | Permeability K @ 20 °C, cm/sec |
|------|---------|---------------|--------|--------------------|----------------|--------------------------------|-------------------|----------|------------------------|----------|----------------|--------------------------------|
|      |         | Cell          | Sample | Z <sub>1</sub>     | Z <sub>2</sub> | Z <sub>1</sub> -Z <sub>2</sub> |                   |          |                        |          |                |                                |
| 9/20 | 1       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 59                | 21.9     | 6.7E-08                | 20       | 1.000          | 6.7E-08                        |
| 9/20 | 2       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 60                | 21.9     | 6.5E-08                | 20       | 1.000          | 6.5E-08                        |
| 9/20 | 4       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 68                | 21.9     | 5.8E-08                | 20       | 1.000          | 5.8E-08                        |
| 9/20 | 4       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 69                | 21.9     | 5.7E-08                | 20       | 1.000          | 5.7E-08                        |

**PERMEABILITY AT 20° C:  $6.2 \times 10^{-8}$  cm/sec (@ 5 psi effective stress)**



|                     |                                                        |              |           |
|---------------------|--------------------------------------------------------|--------------|-----------|
| Client:             | Moretrench American Corp.                              | Project No:  | GTX-11659 |
| Project:            | Shepley Landfill                                       | Tested By:   | jbr       |
| Location:           | Devens, MA                                             | Checked By:  | jdt       |
| Boring ID:          | ---                                                    | Sample Type: | bag       |
| Sample ID:          | BFM-29                                                 | Test Date:   | 09/18/12  |
| Depth :             | ---                                                    | Test Id:     | 249684    |
| Test Comment:       | ---                                                    |              |           |
| Sample Description: | Moist, yellowish brown sandy clay (soil-bentonite mix) |              |           |
| Sample Comment:     | ---                                                    |              |           |

## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
|----------|----------|--------|--------------------|
| ---      | 1.2      | 39.1   | 59.7               |

| Sieve Name | Sieve Size, mm     | Percent Finer | Spec. Percent | Complies |
|------------|--------------------|---------------|---------------|----------|
| 0.375 in   | 9.50               | 100           |               |          |
| #4         | 4.75               | 99            |               |          |
| #10        | 2.00               | 98            |               |          |
| #20        | 0.85               | 94            |               |          |
| #40        | 0.42               | 87            |               |          |
| #60        | 0.25               | 81            |               |          |
| #100       | 0.15               | 74            |               |          |
| #200       | 0.075              | 60            |               |          |
| ---        | Particle Size (mm) | Percent Finer | Spec. Percent | Complies |
| ---        | 0.0320             | 47            |               |          |
| ---        | 0.0204             | 36            |               |          |
| ---        | 0.0123             | 27            |               |          |
| ---        | 0.0089             | 22            |               |          |
| ---        | 0.0064             | 17            |               |          |
| ---        | 0.0046             | 13            |               |          |
| ---        | 0.0032             | 13            |               |          |
| ---        | 0.0014             | 10            |               |          |

### Coefficients

|                             |                             |
|-----------------------------|-----------------------------|
| D <sub>85</sub> = 0.3469 mm | D <sub>30</sub> = 0.0143 mm |
| D <sub>60</sub> = 0.0762 mm | D <sub>15</sub> = 0.0053 mm |
| D <sub>50</sub> = 0.0393 mm | D <sub>10</sub> = 0.0013 mm |
| C <sub>u</sub> = N/A        | C <sub>c</sub> = N/A        |

### Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

### Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---



|                     |                                                        |             |     |
|---------------------|--------------------------------------------------------|-------------|-----|
| Client:             | Moretrench American Corp.                              |             |     |
| Project Name:       | Shepley Landfill                                       |             |     |
| Project Location:   | Devens, MA                                             |             |     |
| GTX #:              | 11659                                                  |             |     |
| Start Date:         | 9/18/2012                                              | Tested By:  | ema |
| End Date:           | 9/20/2012                                              | Checked By: | jdt |
| Boring #:           | ---                                                    |             |     |
| Sample #:           | BFM-29                                                 |             |     |
| Depth:              | ---                                                    |             |     |
| Visual Description: | Moist, yellowish brown sandy clay (soil-bentonite mix) |             |     |

## Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter by ASTM D 5084 Constant Volume

|                     |                                                                                                                       |                 |                          |
|---------------------|-----------------------------------------------------------------------------------------------------------------------|-----------------|--------------------------|
| Sample Type:        | Remolded                                                                                                              | Permeant Fluid: | De-aired Distilled water |
| Orientation:        | Vertical                                                                                                              | Cell #:         | 19/4/5                   |
| Sample Preparation: | Test specimen compacted with moderate effort at the as-received moisture content . Trimmings moisture content = 27.3% |                 |                          |

| Parameter               | Initial | Final |
|-------------------------|---------|-------|
| Height, in              | 2.53    | 2.42  |
| Diameter, in            | 2.85    | 2.73  |
| Area, in <sup>2</sup>   | 6.38    | 5.85  |
| Volume, in <sup>3</sup> | 16.1    | 14.2  |
| Mass, g                 | 524     | 484   |
| Bulk Density, pcf       | 123     | 130   |
| Moisture Content, %     | 28.1    | 18.2  |
| Dry Density, pcf        | 96.4    | 110   |
| Degree of Saturation, % | ---     | 95    |

### B COEFFICIENT DETERMINATION

|                       |      |                          |      |
|-----------------------|------|--------------------------|------|
| Cell Pressure, psi:   | 95.1 | Pressure Increment, psi: | 5.01 |
| Sample Pressure, psi: | 90.0 | B Coefficient:           | 0.97 |

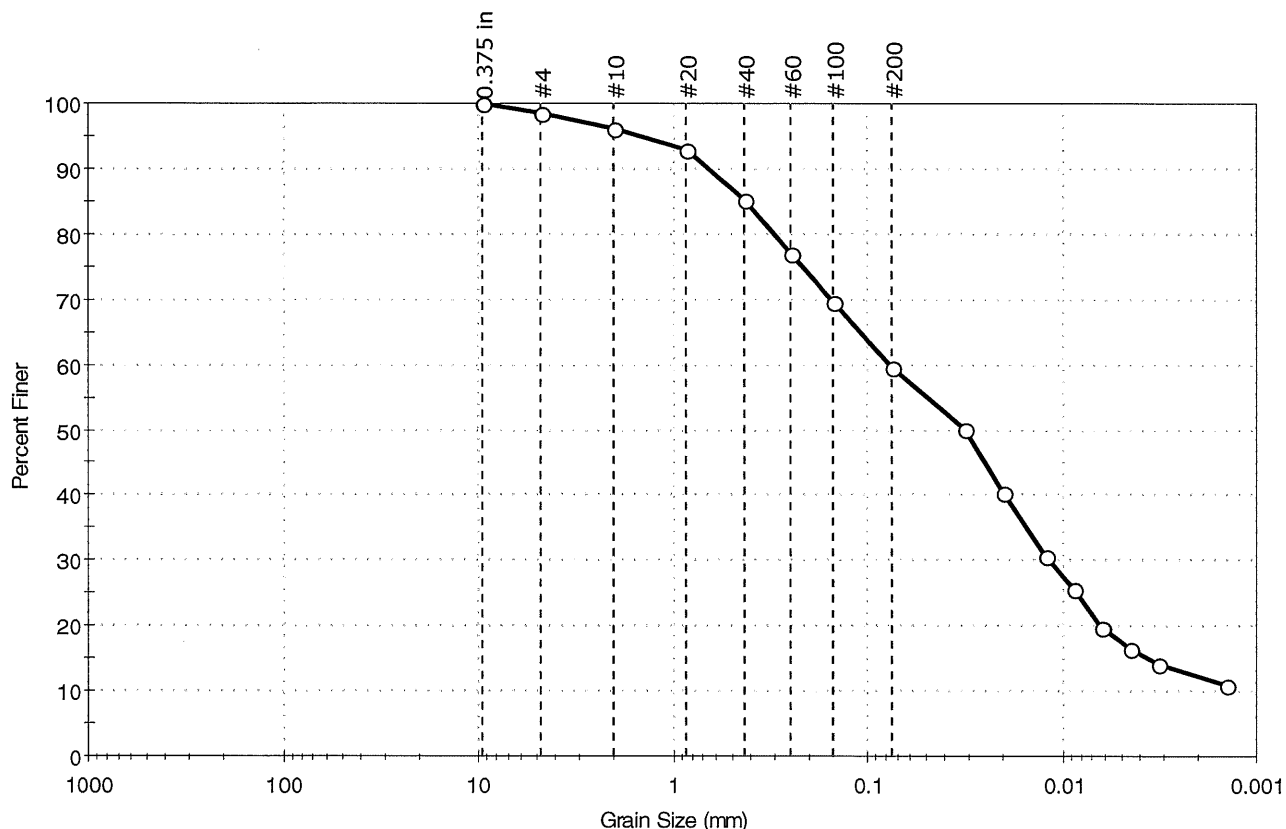
### FLOW DATA

| Date | Trial # | Pressure, psi |        | Manometer Readings |                |                                | Elapsed Time, sec | Gradient | Permeability K, cm/sec | Temp, °C | R <sub>t</sub> | Permeability K @ 20 °C, cm/sec |
|------|---------|---------------|--------|--------------------|----------------|--------------------------------|-------------------|----------|------------------------|----------|----------------|--------------------------------|
|      |         | Cell          | Sample | Z <sub>1</sub>     | Z <sub>2</sub> | Z <sub>1</sub> -Z <sub>2</sub> |                   |          |                        |          |                |                                |
| 9/19 | 1       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 56                | 20.5     | 7.3E-08                | 20       | 1.000          | 7.3E-08                        |
| 9/19 | 2       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 57                | 20.5     | 7.2E-08                | 20       | 1.000          | 7.2E-08                        |
| 9/19 | 3       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 58                | 20.5     | 7.0E-08                | 20       | 1.000          | 7.0E-08                        |
| 9/19 | 4       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 59                | 20.5     | 6.9E-08                | 20       | 1.000          | 6.9E-08                        |

**PERMEABILITY AT 20° C:  $7.1 \times 10^{-8}$  cm/sec (@ 5 psi effective stress)**

|                                                                            |                       |
|----------------------------------------------------------------------------|-----------------------|
| Client: Moretrench American Corp.                                          | Project No: GTX-11659 |
| Project: Shepley Landfill                                                  |                       |
| Location: Devens, MA                                                       |                       |
| Boring ID: ---                                                             | Sample Type: bag      |
| Sample ID: BFM-31                                                          | Test Date: 09/19/12   |
| Depth: ---                                                                 | Test Id: 249685       |
| Test Comment: ---                                                          | Tested By: jbr        |
| Sample Description: Moist, yellowish brown sandy clay (soil-bentonite mix) | Checked By: jdt       |
| Sample Comment: ---                                                        |                       |

## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
|----------|----------|--------|--------------------|
| --       | 1.6      | 38.7   | 59.7               |

| Sieve Name | Sieve Size, mm     | Percent Finer | Spec. Percent | Complies |
|------------|--------------------|---------------|---------------|----------|
| 0.375 in   | 9.50               | 100           |               |          |
| #4         | 4.75               | 98            |               |          |
| #10        | 2.00               | 96            |               |          |
| #20        | 0.85               | 93            |               |          |
| #40        | 0.42               | 85            |               |          |
| #60        | 0.25               | 77            |               |          |
| #100       | 0.15               | 70            |               |          |
| #200       | 0.075              | 60            |               |          |
| ---        | Particle Size (mm) | Percent Finer | Spec. Percent | Complies |
| ---        | 0.0318             | 50            |               |          |
| ---        | 0.0204             | 40            |               |          |
| ---        | 0.0123             | 31            |               |          |
| ---        | 0.0088             | 26            |               |          |
| ---        | 0.0063             | 20            |               |          |
| ---        | 0.0045             | 17            |               |          |
| ---        | 0.0032             | 14            |               |          |
| ---        | 0.0014             | 11            |               |          |

| Coefficients                |                             |
|-----------------------------|-----------------------------|
| D <sub>85</sub> = 0.4159 mm | D <sub>30</sub> = 0.0118 mm |
| D <sub>60</sub> = 0.0767 mm | D <sub>15</sub> = 0.0037 mm |
| D <sub>50</sub> = 0.0315 mm | D <sub>10</sub> = 0.0012 mm |
| C <sub>u</sub> = N/A        | C <sub>c</sub> = N/A        |

| Classification |                       |
|----------------|-----------------------|
| ASTM           | N/A                   |
| AASHTO         | Silty Soils (A-4 (0)) |

| Sample/Test Description    |       |
|----------------------------|-------|
| Sand/Gravel Particle Shape | : --- |
| Sand/Gravel Hardness       | : --- |



|                     |                                                        |             |     |
|---------------------|--------------------------------------------------------|-------------|-----|
| Client:             | Moretrench American Corp.                              |             |     |
| Project Name:       | Shepley Landfill                                       |             |     |
| Project Location:   | Devens, MA                                             |             |     |
| GTX #:              | 11659                                                  |             |     |
| Start Date:         | 9/19/2012                                              | Tested By:  | ema |
| End Date:           | 9/21/2012                                              | Checked By: | jdt |
| Boring #:           | ---                                                    |             |     |
| Sample #:           | BFM-31                                                 |             |     |
| Depth:              | ---                                                    |             |     |
| Visual Description: | Moist, yellowish brown sandy clay (soil-bentonite mix) |             |     |

## Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter by ASTM D 5084 Constant Volume

Sample Type:

Remolded

Permeant Fluid:

De-aired Distilled water

Orientation:

Vertical

Cell #:

16/5/11

Sample Preparation:

Test specimen compacted with moderate effort at the as-received moisture content . Trimmings moisture content = 31.5%

| Parameter               | Initial | Final |
|-------------------------|---------|-------|
| Height, in              | 2.74    | 2.48  |
| Diameter, in            | 2.85    | 2.71  |
| Area, in <sup>2</sup>   | 6.38    | 5.77  |
| Volume, in <sup>3</sup> | 17.5    | 14.3  |
| Mass, g                 | 525     | 483   |
| Bulk Density, pcf       | 114     | 128   |
| Moisture Content, %     | 31.3    | 20.8  |
| Dry Density, pcf        | 86.9    | 106   |
| Degree of Saturation, % | ---     | 99    |

### B COEFFICIENT DETERMINATION

|                       |      |                          |      |
|-----------------------|------|--------------------------|------|
| Cell Pressure, psi:   | 95.1 | Pressure Increment, psi: | 5.02 |
| Sample Pressure, psi: | 90.0 | B Coefficient:           | 0.95 |

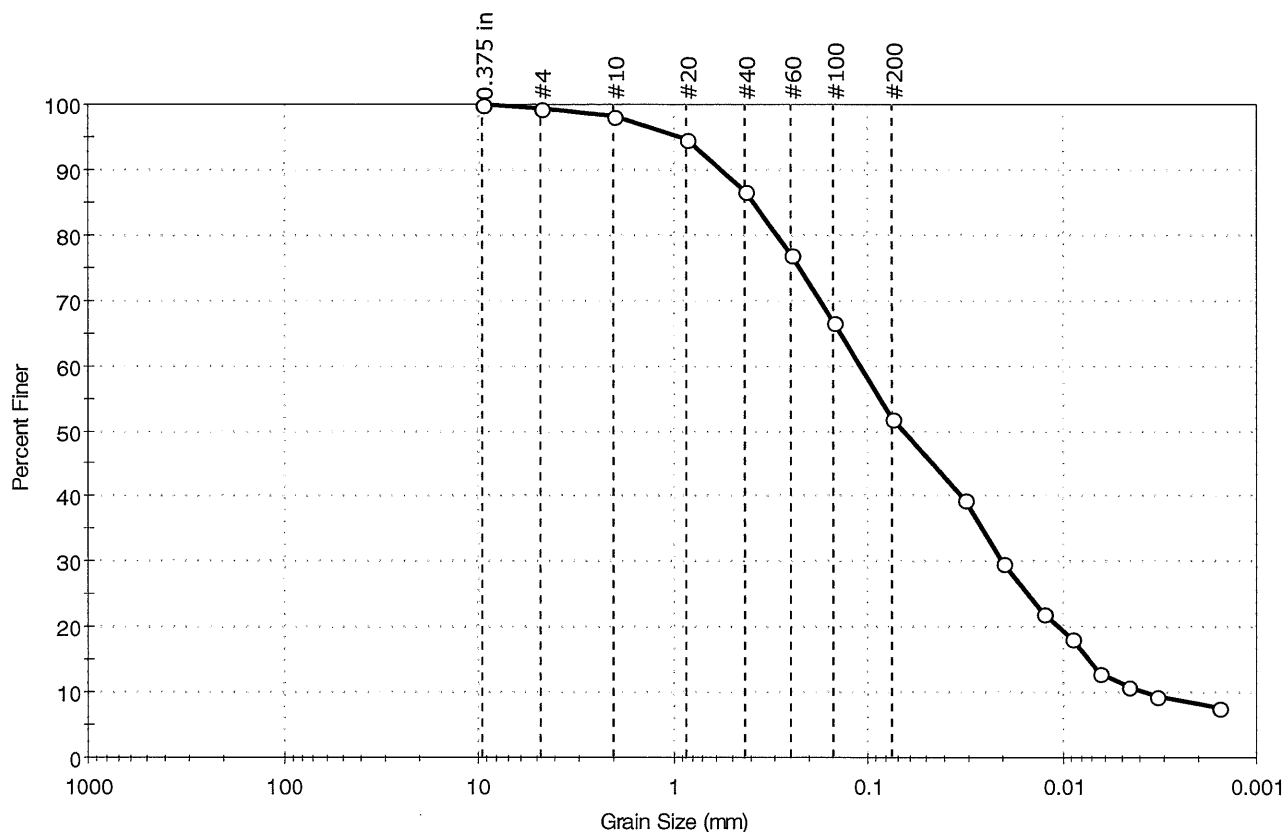
### FLOW DATA

| Date | Trial # | Pressure, psi |        | Manometer Readings |                |                                | Elapsed Time, sec | Gradient | Permeability K, cm/sec | Temp, °C | R <sub>t</sub> | Permeability K @ 20 °C, cm/sec |
|------|---------|---------------|--------|--------------------|----------------|--------------------------------|-------------------|----------|------------------------|----------|----------------|--------------------------------|
|      |         | Cell          | Sample | Z <sub>1</sub>     | Z <sub>2</sub> | Z <sub>1</sub> -Z <sub>2</sub> |                   |          |                        |          |                |                                |
| 9/20 | 2       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 121               | 20.0     | 3.5E-08                | 20       | 1.000          | 3.5E-08                        |
| 9/20 | 3       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 129               | 20.0     | 3.3E-08                | 20       | 1.000          | 3.3E-08                        |
| 9/20 | 4       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 131               | 20.0     | 3.2E-08                | 20       | 1.000          | 3.2E-08                        |
| 9/20 | 5       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 132               | 20.0     | 3.2E-08                | 20       | 1.000          | 3.2E-08                        |

**PERMEABILITY AT 20° C:  $3.3 \times 10^{-8}$  cm/sec (@ 5 psi effective stress)**

|                                                                            |                       |                 |
|----------------------------------------------------------------------------|-----------------------|-----------------|
| Client: Moretrench American Corp.                                          | Project No: GTX-11659 |                 |
| Project: Shepley Landfill                                                  |                       |                 |
| Location: Devens, MA                                                       | Sample Type: bag      | Tested By: jbr  |
| Boring ID: ---                                                             | Test Date: 09/18/12   | Checked By: jdt |
| Sample ID: BFM-34                                                          | Test Id: 249686       |                 |
| Depth: ---                                                                 |                       |                 |
| Test Comment: ---                                                          |                       |                 |
| Sample Description: Moist, yellowish brown sandy clay (soil-bentonite mix) |                       |                 |
| Sample Comment: ---                                                        |                       |                 |

## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
|----------|----------|--------|--------------------|
| ---      | 0.6      | 47.4   | 52.0               |

| Sieve Name | Sieve Size, mm     | Percent Finer | Spec. Percent | Complies |
|------------|--------------------|---------------|---------------|----------|
| 0.375 in   | 9.50               | 100           |               |          |
| #4         | 4.75               | 99            |               |          |
| #10        | 2.00               | 98            |               |          |
| #20        | 0.85               | 95            |               |          |
| #40        | 0.42               | 87            |               |          |
| #60        | 0.25               | 77            |               |          |
| #100       | 0.15               | 67            |               |          |
| #200       | 0.075              | 52            |               |          |
| ---        | Particle Size (mm) | Percent Finer | Spec. Percent | Complies |
| ---        | 0.0315             | 40            |               |          |
| ---        | 0.0204             | 30            |               |          |
| ---        | 0.0125             | 22            |               |          |
| ---        | 0.0090             | 18            |               |          |
| ---        | 0.0065             | 13            |               |          |
| ---        | 0.0046             | 11            |               |          |
| ---        | 0.0033             | 9             |               |          |
| ---        | 0.0016             | 8             |               |          |

### Coefficients

$D_{85} = 0.3877$  mm       $D_{30} = 0.0207$  mm  
 $D_{60} = 0.1095$  mm       $D_{15} = 0.0073$  mm  
 $D_{50} = 0.0653$  mm       $D_{10} = 0.0038$  mm  
 $C_u = N/A$        $C_c = N/A$

### Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

### Sample/Test Description

Sand/Gravel Particle Shape : ---  
 Sand/Gravel Hardness : ---



|                     |                                                        |             |     |
|---------------------|--------------------------------------------------------|-------------|-----|
| Client:             | Moretrench American Corp.                              |             |     |
| Project Name:       | Shepley Landfill                                       |             |     |
| Project Location:   | Devens, MA                                             |             |     |
| GTX #:              | 11659                                                  |             |     |
| Start Date:         | 9/18/2012                                              | Tested By:  | ema |
| End Date:           | 9/20/2012                                              | Checked By: | jdt |
| Boring #:           | ---                                                    |             |     |
| Sample #:           | BFM-34                                                 |             |     |
| Depth:              | ---                                                    |             |     |
| Visual Description: | Moist, yellowish brown sandy clay (soil-bentonite mix) |             |     |

## Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter by ASTM D 5084 Constant Volume

Sample Type:

Remolded

Permeant Fluid:

De-aired Distilled water

Orientation:

Vertical

Cell #:

3/9

Sample Preparation:

Test specimen compacted with moderate effort at the as-received moisture content . Trimmings moisture content = 29.0%

| Parameter               | Initial | Final |
|-------------------------|---------|-------|
| Height, in              | 2.68    | 2.51  |
| Diameter, in            | 2.85    | 2.79  |
| Area, in <sup>2</sup>   | 6.38    | 6.11  |
| Volume, in <sup>3</sup> | 17.1    | 15.3  |
| Mass, g                 | 530     | 507   |
| Bulk Density, pcf       | 118     | 126   |
| Moisture Content, %     | 28.6    | 23.0  |
| Dry Density, pcf        | 91.6    | 102   |
| Degree of Saturation, % | ---     | 98    |

### B COEFFICIENT DETERMINATION

|                       |      |                          |      |
|-----------------------|------|--------------------------|------|
| Cell Pressure, psi:   | 95.2 | Pressure Increment, psi: | 5.05 |
| Sample Pressure, psi: | 90.1 | B Coefficient:           | 0.99 |

### FLOW DATA

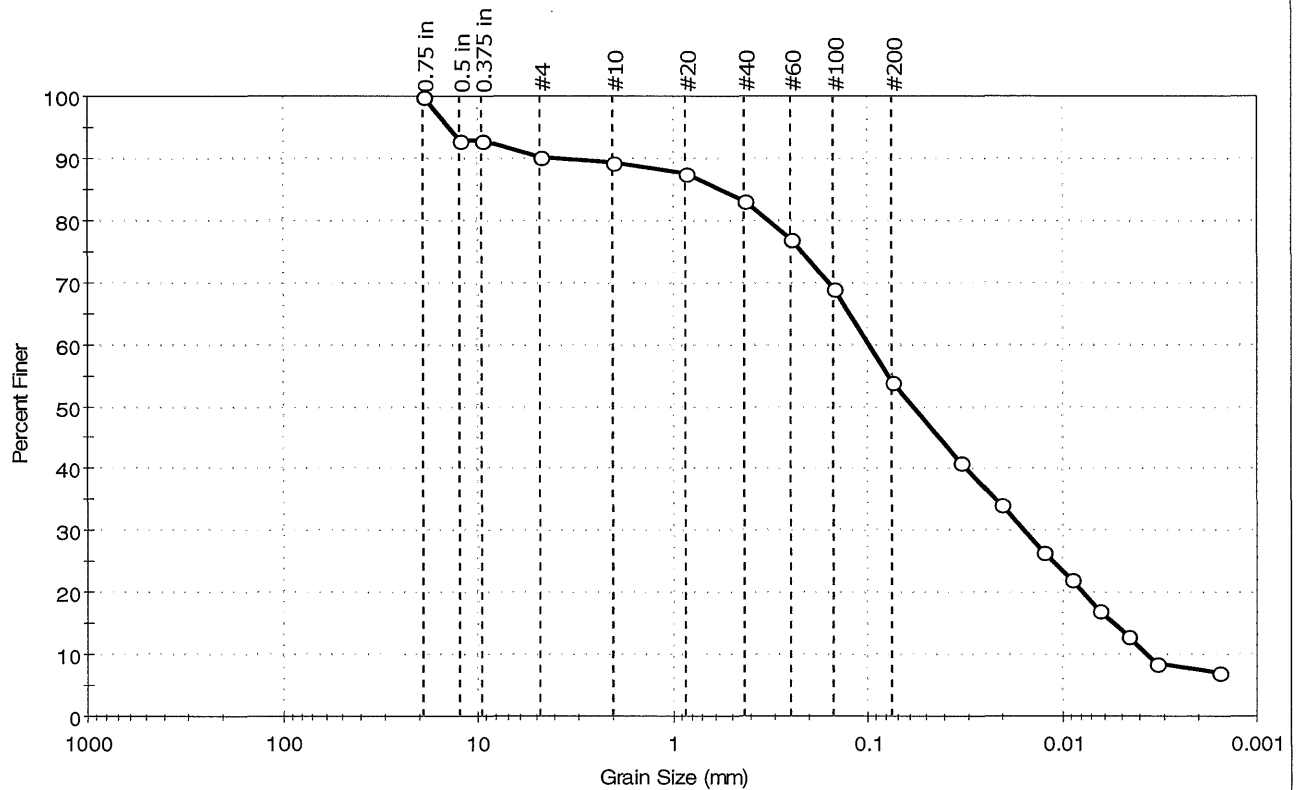
| Date | Trial # | Pressure, psi |        | Manometer Readings |                |                                | Elapsed Time, sec | Gradient | Permeability K, cm/sec | Temp, °C | R <sub>t</sub> | Permeability K @ 20 °C, cm/sec |
|------|---------|---------------|--------|--------------------|----------------|--------------------------------|-------------------|----------|------------------------|----------|----------------|--------------------------------|
|      |         | Cell          | Sample | Z <sub>1</sub>     | Z <sub>2</sub> | Z <sub>1</sub> -Z <sub>2</sub> |                   |          |                        |          |                |                                |
| 9/19 | 1       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 43                | 19.8     | 9.4E-08                | 20       | 1.000          | 9.4E-08                        |
| 9/19 | 2       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 44                | 19.8     | 9.2E-08                | 20       | 1.000          | 9.2E-08                        |
| 9/19 | 3       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 47                | 19.8     | 8.6E-08                | 20       | 1.000          | 8.6E-08                        |
| 9/19 | 4       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 49                | 19.8     | 8.3E-08                | 20       | 1.000          | 8.3E-08                        |

**PERMEABILITY AT 20° C:  $8.9 \times 10^{-8}$  cm/sec (@ 5 psi effective stress)**



|                                                                            |                       |                 |
|----------------------------------------------------------------------------|-----------------------|-----------------|
| Client: Moretrench American Corp.                                          | Project No: GTX-11659 |                 |
| Project: Shepley Landfill                                                  |                       |                 |
| Location: Devens, MA                                                       | Sample Type: bag      | Tested By: jbr  |
| Boring ID: ---                                                             | Test Date: 09/19/12   | Checked By: jdt |
| Sample ID: BFM-37                                                          | Test Id: 249687       |                 |
| Depth: ---                                                                 |                       |                 |
| Test Comment: ---                                                          |                       |                 |
| Sample Description: Moist, yellowish brown sandy clay (soil-bentonite mix) |                       |                 |
| Sample Comment: ---                                                        |                       |                 |

## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
|----------|----------|--------|--------------------|
| ---      | 9.8      | 36.2   | 54.0               |

| Sieve Name | Sieve Size, mm     | Percent Finer | Spec. Percent | Complies |
|------------|--------------------|---------------|---------------|----------|
| 0.75 in    | 19.00              | 100           |               |          |
| 0.5 in     | 12.50              | 93            |               |          |
| 0.375 in   | 9.50               | 93            |               |          |
| #4         | 4.75               | 90            |               |          |
| #10        | 2.00               | 90            |               |          |
| #20        | 0.85               | 88            |               |          |
| #40        | 0.42               | 83            |               |          |
| #60        | 0.25               | 77            |               |          |
| #100       | 0.15               | 69            |               |          |
| #200       | 0.075              | 54            |               |          |
| ---        | Particle Size (mm) | Percent Finer | Spec. Percent | Complies |
| ---        | 0.0334             | 41            |               |          |
| ---        | 0.0205             | 34            |               |          |
| ---        | 0.0125             | 26            |               |          |
| ---        | 0.0090             | 22            |               |          |
| ---        | 0.0064             | 17            |               |          |
| ---        | 0.0046             | 13            |               |          |
| ---        | 0.0033             | 9             |               |          |
| ---        | 0.0016             | 7             |               |          |

### Coefficients

|                             |                             |
|-----------------------------|-----------------------------|
| D <sub>85</sub> = 0.5673 mm | D <sub>30</sub> = 0.0157 mm |
| D <sub>60</sub> = 0.0990 mm | D <sub>15</sub> = 0.0054 mm |
| D <sub>50</sub> = 0.0585 mm | D <sub>10</sub> = 0.0037 mm |
| C <sub>u</sub> = N/A        | C <sub>c</sub> = N/A        |

### Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

### Sample/Test Description

Sand/Gravel Particle Shape : ROUNDED

Sand/Gravel Hardness : HARD



|                     |                                                        |             |     |
|---------------------|--------------------------------------------------------|-------------|-----|
| Client:             | Moretrench American Corp.                              |             |     |
| Project Name:       | Shepley Landfill                                       |             |     |
| Project Location:   | Devens, MA                                             |             |     |
| GTX #:              | 11659                                                  |             |     |
| Start Date:         | 9/19/2012                                              | Tested By:  | ema |
| End Date:           | 9/25/2012                                              | Checked By: | jdt |
| Boring #:           | ---                                                    |             |     |
| Sample #:           | BFM-37                                                 |             |     |
| Depth:              | ---                                                    |             |     |
| Visual Description: | Moist, yellowish brown sandy clay (soil-bentonite mix) |             |     |

## Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter by ASTM D 5084 Constant Volume

Sample Type:

Remolded

Permeant Fluid:

De-aired Distilled water

Orientation:

Vertical

Cell #:

8/9/3

Sample Preparation:

Test specimen compacted with moderate effort at the as-received moisture content . Trimmings moisture content = 31.3%

| Parameter               | Initial | Final |
|-------------------------|---------|-------|
| Height, in              | 2.72    | 2.68  |
| Diameter, in            | 2.85    | 2.75  |
| Area, in <sup>2</sup>   | 6.38    | 5.94  |
| Volume, in <sup>3</sup> | 17.4    | 15.9  |
| Mass, g                 | 565     | 533   |
| Bulk Density, pcf       | 124     | 127   |
| Moisture Content, %     | 28.4    | 21.0  |
| Dry Density, pcf        | 96.4    | 105   |
| Degree of Saturation, % | ---     | 97    |

### B COEFFICIENT DETERMINATION

|                       |      |                          |      |
|-----------------------|------|--------------------------|------|
| Cell Pressure, psi:   | 95.1 | Pressure Increment, psi: | 5.05 |
| Sample Pressure, psi: | 90.1 | B Coefficient:           | 0.98 |

### FLOW DATA

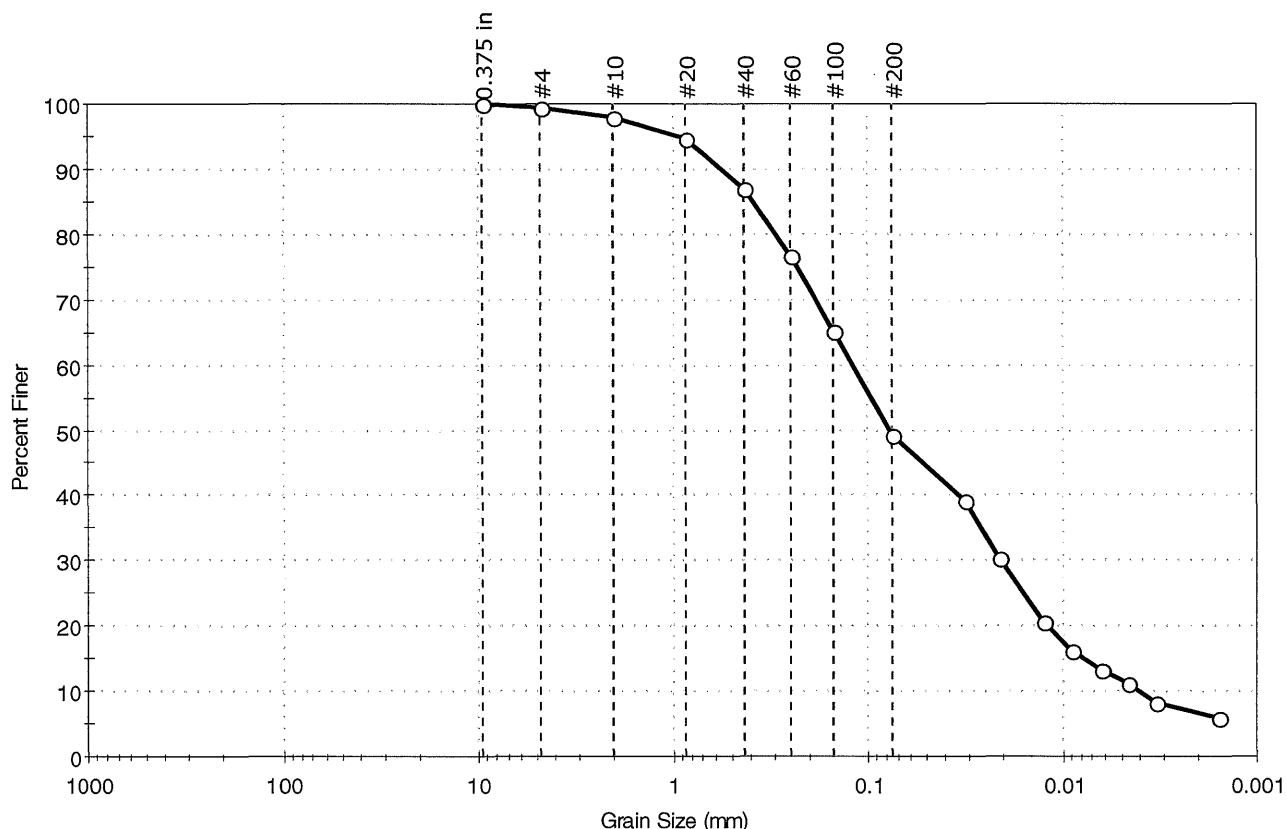
| Date | Trial # | Pressure, psi |        | Manometer Readings |                |                                | Elapsed Time, sec | Gradient | Permeability K, cm/sec | Temp, °C | R <sub>t</sub> | Permeability K @ 20 °C, cm/sec |
|------|---------|---------------|--------|--------------------|----------------|--------------------------------|-------------------|----------|------------------------|----------|----------------|--------------------------------|
|      |         | Cell          | Sample | Z <sub>1</sub>     | Z <sub>2</sub> | Z <sub>1</sub> -Z <sub>2</sub> |                   |          |                        |          |                |                                |
| 9/24 | 1       | 90            | 85     | 10.0               | 9.8            | 0.2                            | 114               | 18.5     | 7.9E-08                | 20       | 1.000          | 7.9E-08                        |
| 9/24 | 2       | 90            | 85     | 10.0               | 9.8            | 0.2                            | 120               | 18.5     | 7.5E-08                | 20       | 1.000          | 7.5E-08                        |
| 9/24 | 3       | 90            | 85     | 10.0               | 9.8            | 0.2                            | 131               | 18.5     | 6.8E-08                | 20       | 1.000          | 6.8E-08                        |
| 9/24 | 4       | 90            | 85     | 10.0               | 9.8            | 0.2                            | 137               | 18.5     | 6.5E-08                | 20       | 1.000          | 6.5E-08                        |

**PERMEABILITY AT 20° C:  $7.2 \times 10^{-8}$  cm/sec (@ 5 psi effective stress)**



|                     |                                                         |              |           |
|---------------------|---------------------------------------------------------|--------------|-----------|
| Client:             | Moretrench American Corp.                               | Project No:  | GTX-11659 |
| Project:            | Shepley Landfill                                        | Tested By:   | jbr       |
| Location:           | Devens, MA                                              | Checked By:  | jdt       |
| Boring ID:          | ---                                                     | Sample Type: | bag       |
| Sample ID:          | BFM-39                                                  | Test Date:   | 09/18/12  |
| Depth :             | ---                                                     | Test Id:     | 249688    |
| Test Comment:       | ---                                                     |              |           |
| Sample Description: | Moist, yellowish brown clayey sand (soil-bentonite mix) |              |           |
| Sample Comment:     | ---                                                     |              |           |

## Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



| % Cobble | % Gravel | % Sand | % Silt & Clay Size |
|----------|----------|--------|--------------------|
| --       | 0.5      | 50.1   | 49.4               |

| Sieve Name | Sieve Size, mm     | Percent Finer | Spec. Percent | Complies |
|------------|--------------------|---------------|---------------|----------|
| 0.375 in   | 9.50               | 100           |               |          |
| #4         | 4.75               | 99            |               |          |
| #10        | 2.00               | 98            |               |          |
| #20        | 0.85               | 95            |               |          |
| #40        | 0.42               | 87            |               |          |
| #60        | 0.25               | 77            |               |          |
| #100       | 0.15               | 65            |               |          |
| #200       | 0.075              | 49            |               |          |
| ---        | Particle Size (mm) | Percent Finer | Spec. Percent | Complies |
| ---        | 0.0317             | 39            |               |          |
| ---        | 0.0212             | 30            |               |          |
| ---        | 0.0126             | 21            |               |          |
| ---        | 0.0091             | 16            |               |          |
| ---        | 0.0063             | 13            |               |          |
| ---        | 0.0046             | 11            |               |          |
| ---        | 0.0033             | 8             |               |          |
| ---        | 0.0016             | 6             |               |          |

### Coefficients

|                             |                             |
|-----------------------------|-----------------------------|
| D <sub>85</sub> = 0.3821 mm | D <sub>30</sub> = 0.0208 mm |
| D <sub>60</sub> = 0.1195 mm | D <sub>15</sub> = 0.0077 mm |
| D <sub>50</sub> = 0.0771 mm | D <sub>10</sub> = 0.0040 mm |
| C <sub>u</sub> = N/A        | C <sub>c</sub> = N/A        |

### Classification

ASTM N/A

AASHTO Silty Soils (A-4 (0))

### Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---



|                     |                                                         |             |     |
|---------------------|---------------------------------------------------------|-------------|-----|
| Client:             | Moretrench American Corp.                               |             |     |
| Project Name:       | Shepley Landfill                                        |             |     |
| Project Location:   | Devens, MA                                              |             |     |
| GTX #:              | 11659                                                   |             |     |
| Start Date:         | 9/18/2012                                               | Tested By:  | ema |
| End Date:           | 9/20/2012                                               | Checked By: | jdt |
| Boring #:           | ---                                                     |             |     |
| Sample #:           | BFM-39                                                  |             |     |
| Depth:              | ---                                                     |             |     |
| Visual Description: | Moist, yellowish brown clayey sand (soil-bentonite mix) |             |     |

## Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter by ASTM D 5084 Constant Volume

Sample Type: Remolded      Permeant Fluid: De-aired Distilled water  
 Orientation: Vertical      Cell #: 9/7/14  
 Sample Preparation: Test specimen compacted with moderate effort at the as-received moisture content . Trimmings moisture content = 28.4%

| Parameter               | Initial | Final |
|-------------------------|---------|-------|
| Height, in              | 2.38    | 2.41  |
| Diameter, in            | 2.85    | 2.74  |
| Area, in <sup>2</sup>   | 6.38    | 5.90  |
| Volume, in <sup>3</sup> | 15.2    | 14.2  |
| Mass, g                 | 516     | 491   |
| Bulk Density, pcf       | 129     | 131   |
| Moisture Content, %     | 28.6    | 22.4  |
| Dry Density, pcf        | 100     | 107   |
| Degree of Saturation, % | ---     | 99    |

### B COEFFICIENT DETERMINATION

Cell Pressure, psi: 95.1      Pressure Increment, psi: 5.07  
 Sample Pressure, psi: 90.2      B Coefficient: 1.00

### FLOW DATA

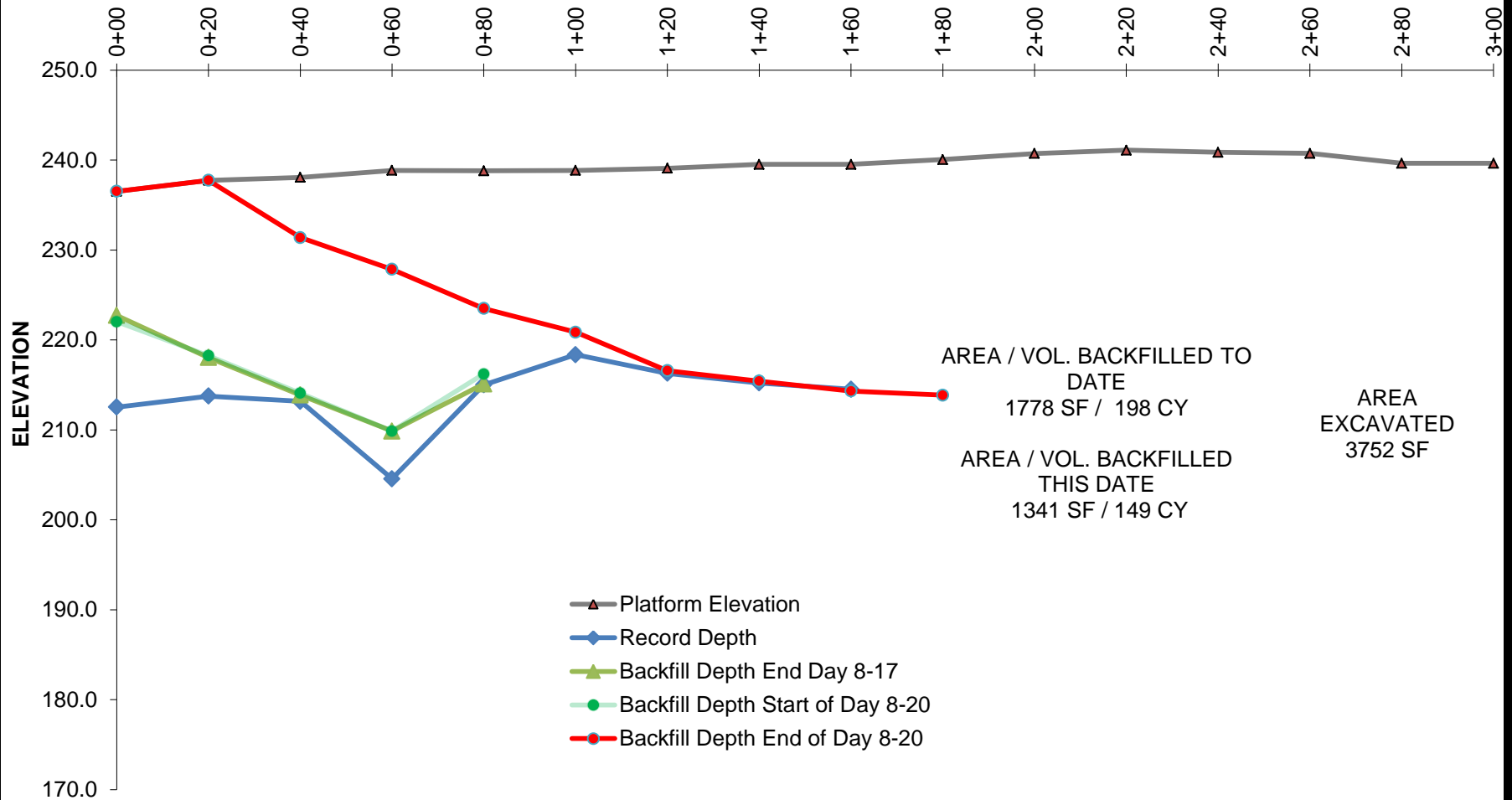
| Date | Trial # | Pressure, psi |        | Manometer Readings |                |                                | Elapsed Time, sec | Gradient | Permeability K, cm/sec | Temp, °C | R <sub>t</sub> | Permeability K @ 20 °C, cm/sec |
|------|---------|---------------|--------|--------------------|----------------|--------------------------------|-------------------|----------|------------------------|----------|----------------|--------------------------------|
|      |         | Cell          | Sample | Z <sub>1</sub>     | Z <sub>2</sub> | Z <sub>1</sub> -Z <sub>2</sub> |                   |          |                        |          |                |                                |
| 9/19 | 1       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 50                | 20.6     | 8.1E-08                | 20       | 1.000          | 8.1E-08                        |
| 9/19 | 2       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 51                | 20.6     | 7.9E-08                | 20       | 1.000          | 7.9E-08                        |
| 9/19 | 3       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 52                | 20.6     | 7.8E-08                | 20       | 1.000          | 7.8E-08                        |
| 9/19 | 4       | 90            | 85     | 10.0               | 9.9            | 0.1                            | 52                | 20.6     | 7.8E-08                | 20       | 1.000          | 7.8E-08                        |

**PERMEABILITY AT 20° C:  $7.9 \times 10^{-8}$  cm/sec (@ 5 psi effective stress)**

# MORETRENCH AMERICAN CORPORATION

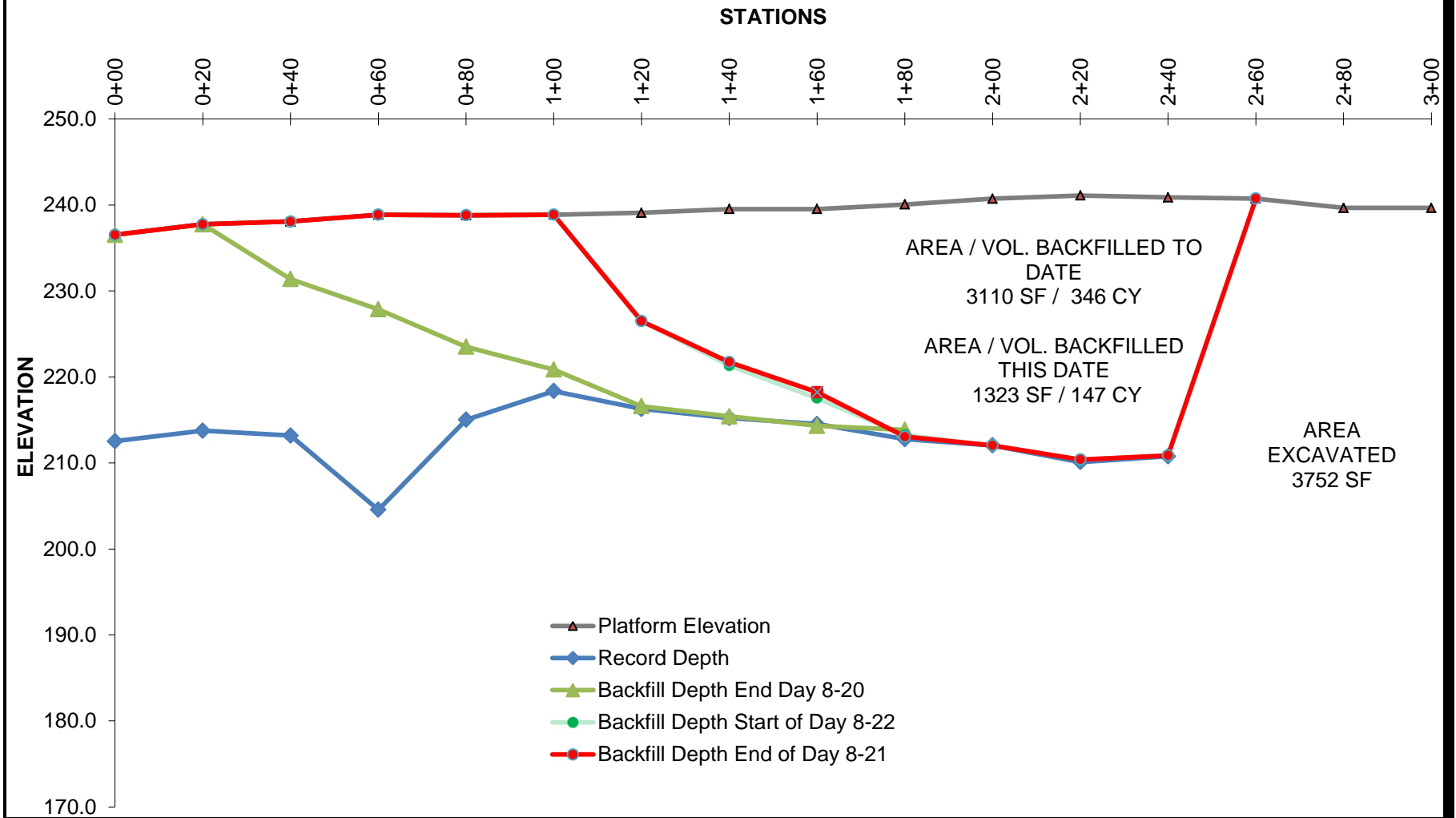
Shepley's Hill Landfill  
Devens, MA

STATIONS



# MORETRENCH AMERICAN CORPORATION

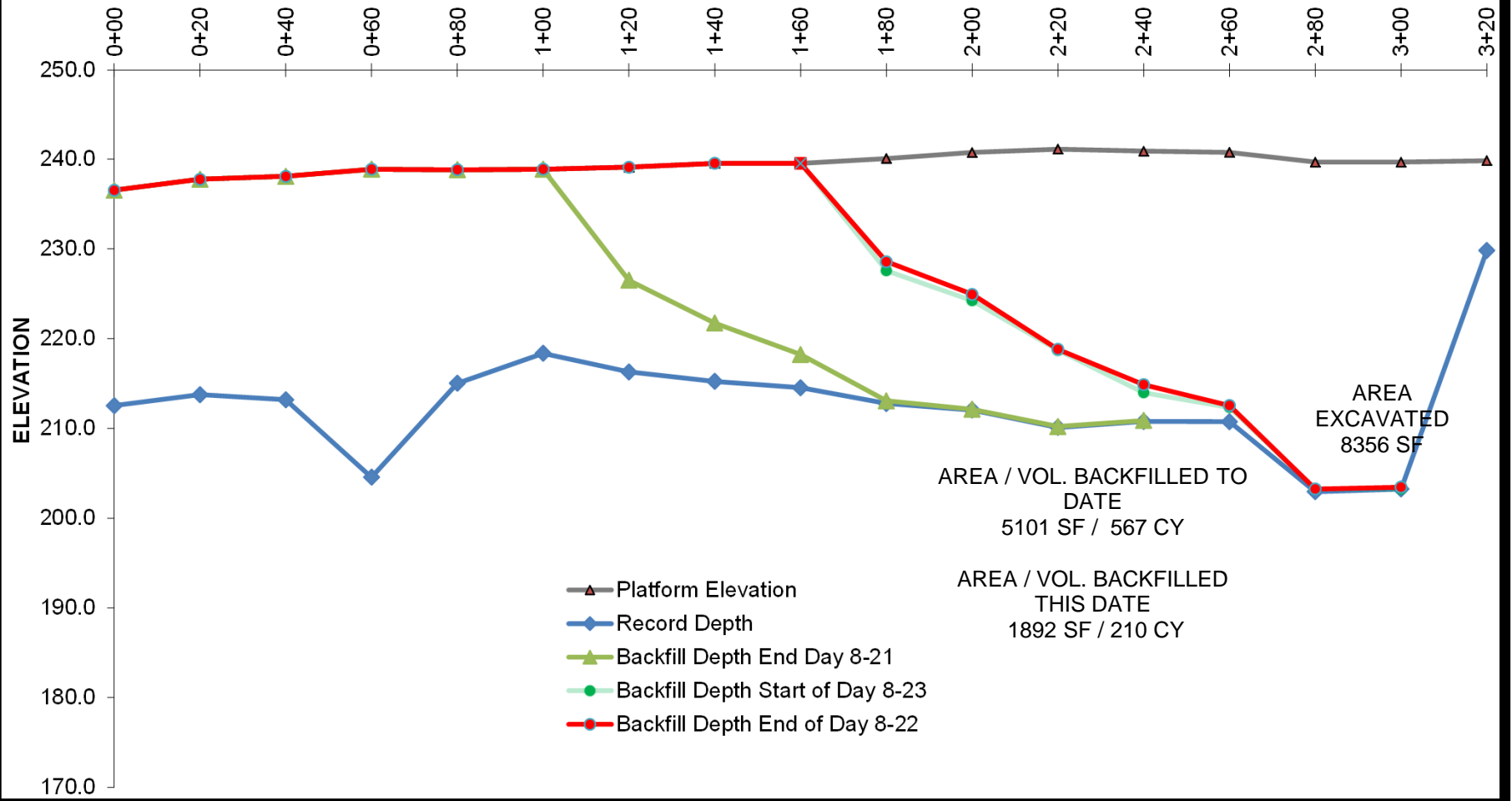
Shepley's Hill Landfill  
Devens, MA  
8-21-12



# MORETRENCH AMERICAN CORPORATION

Shepley's Hill Landfill  
Devens, MA  
8-22-12

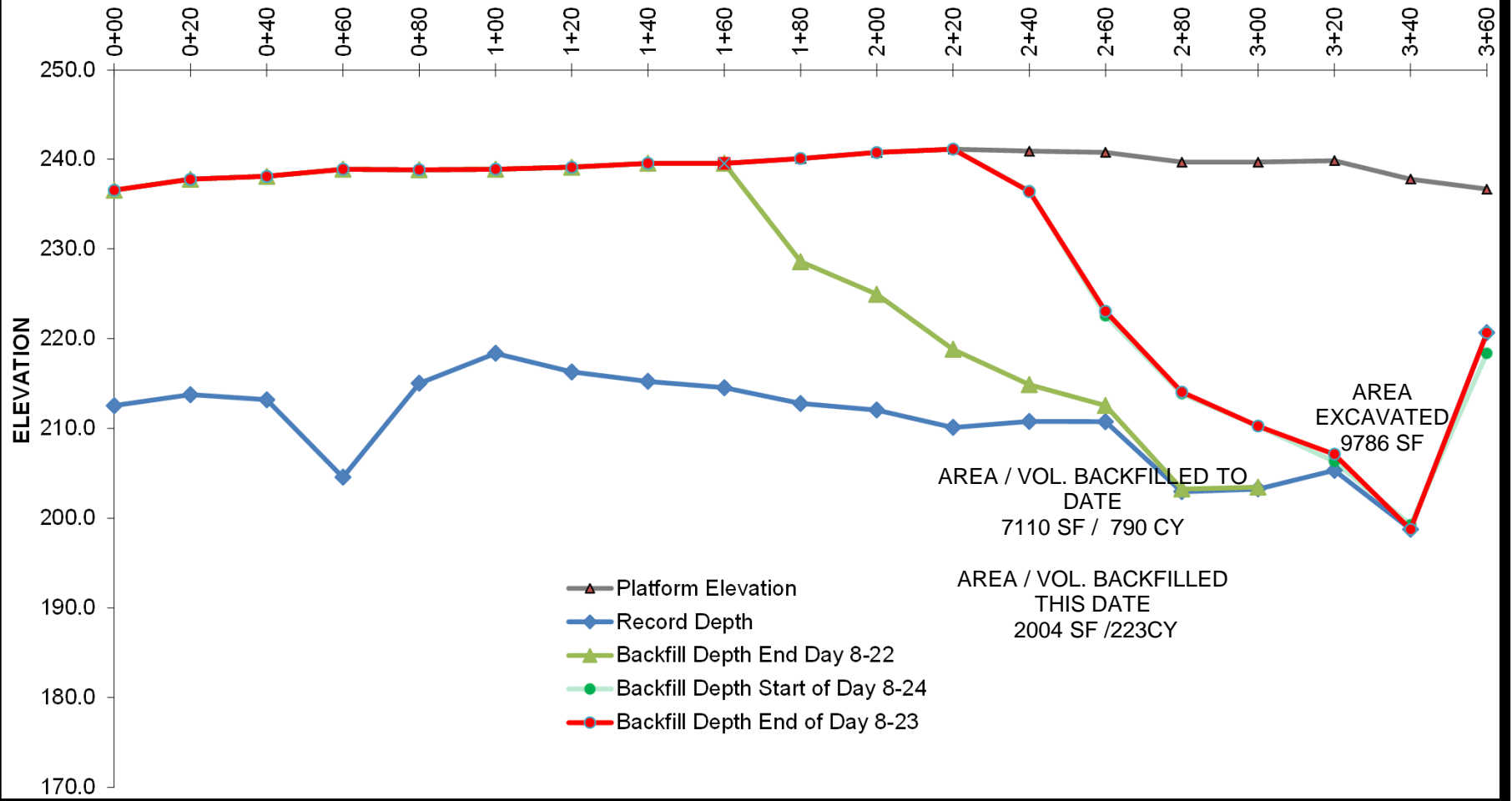
STATIONS



# MORETRENCH AMERICAN CORPORATION

Shepley's Hill Landfill  
Devens, MA  
8-23-12

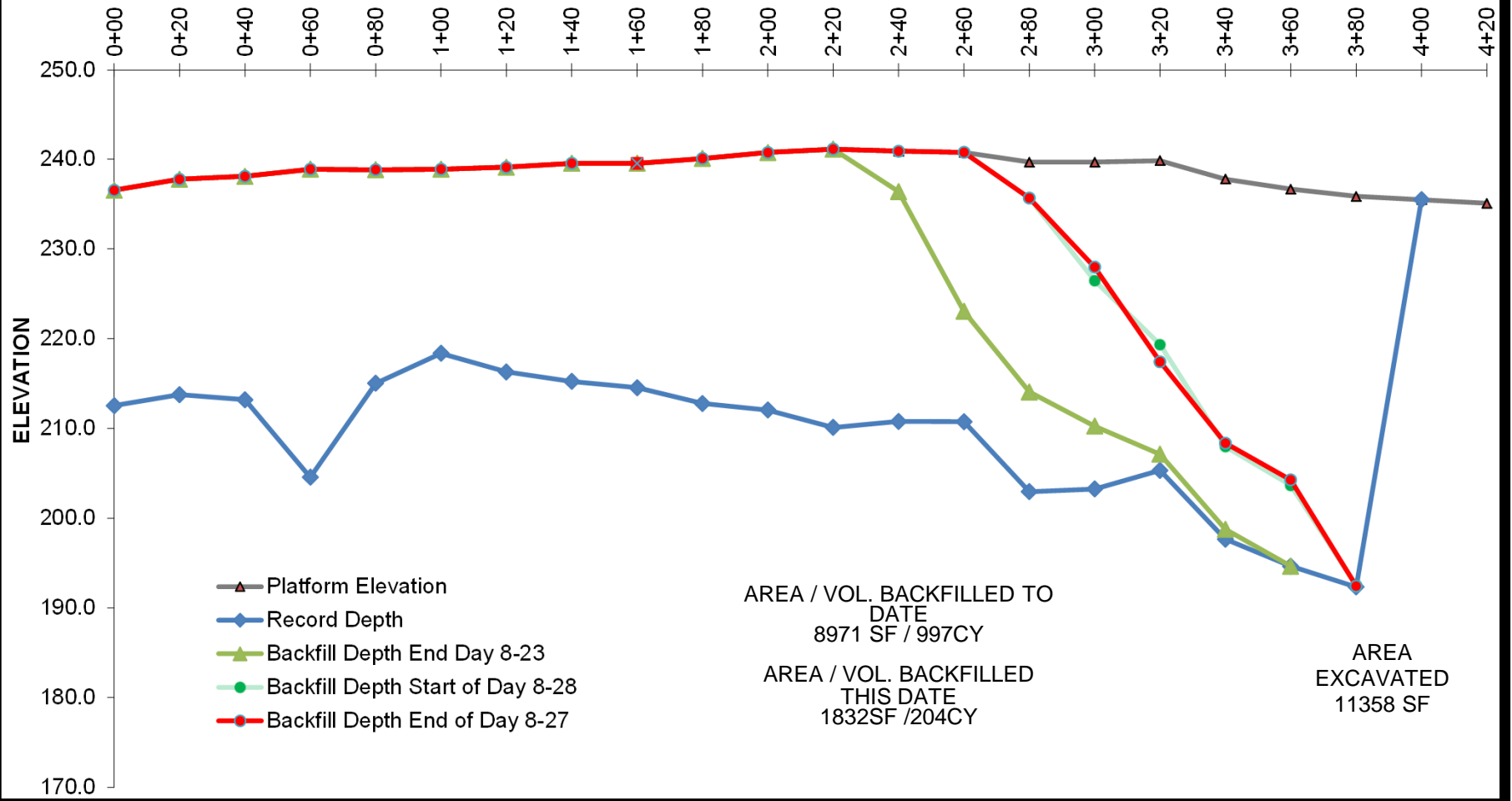
STATIONS



# MORETRENCH AMERICAN CORPORATION

Shepley's Hill Landfill  
Devens, MA  
8-27-12

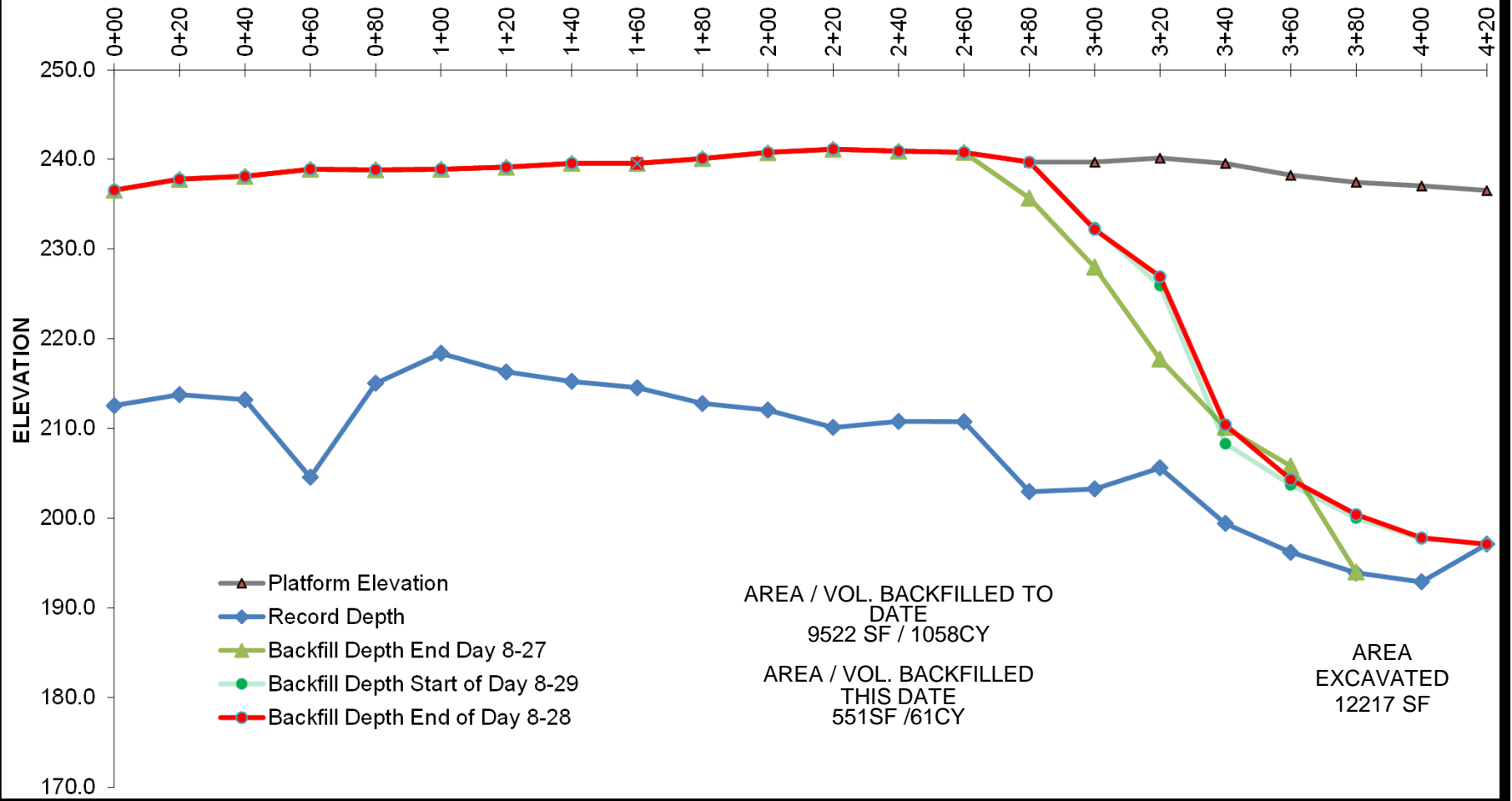
STATIONS



# MORETRENCH AMERICAN CORPORATION

Shepley's Hill Landfill  
Devens, MA  
8-28-12

STATIONS

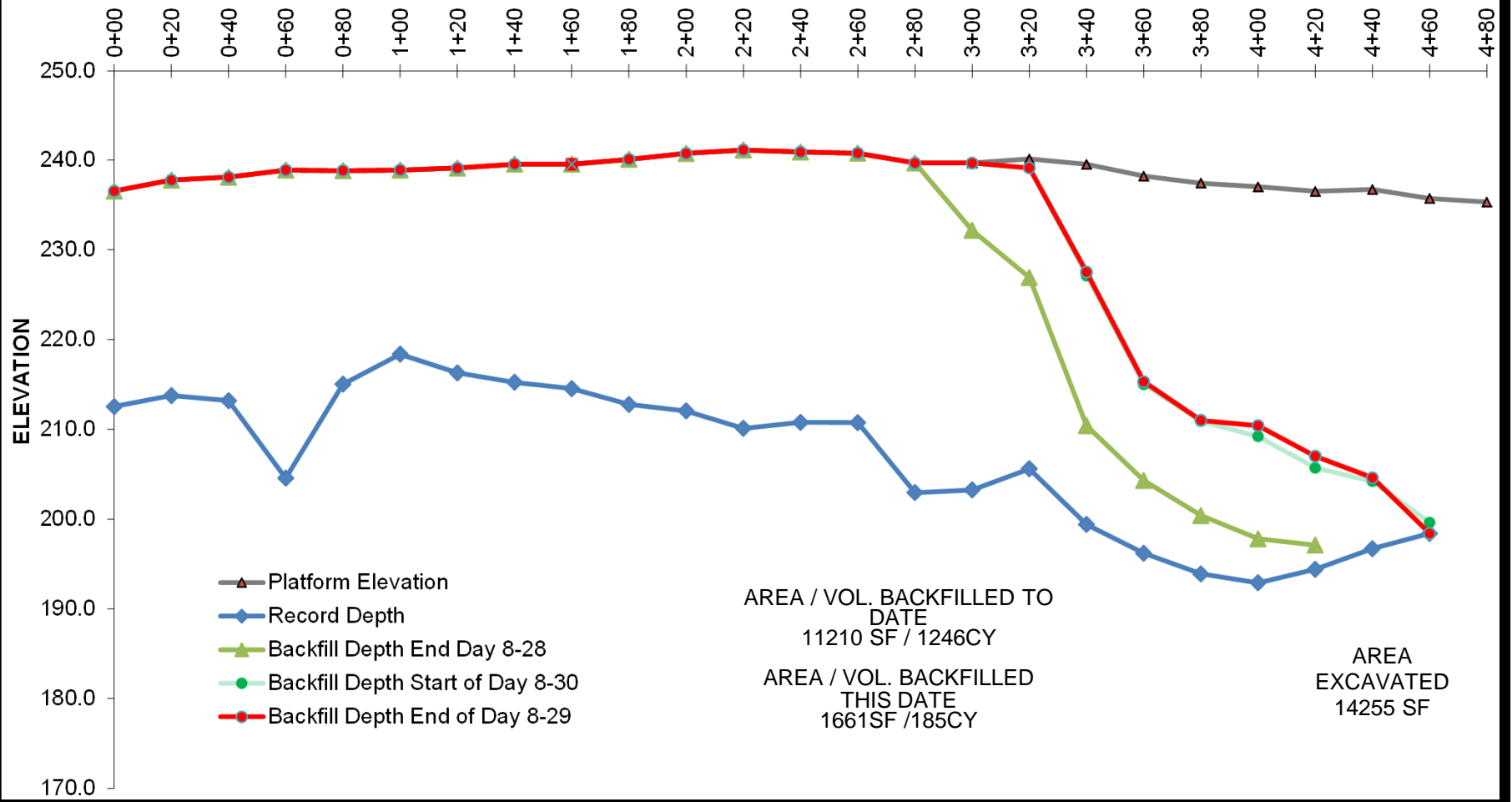




# MORETRENCH AMERICAN CORPORATION

Shepley's Hill Landfill  
Devens, MA  
8-29-12

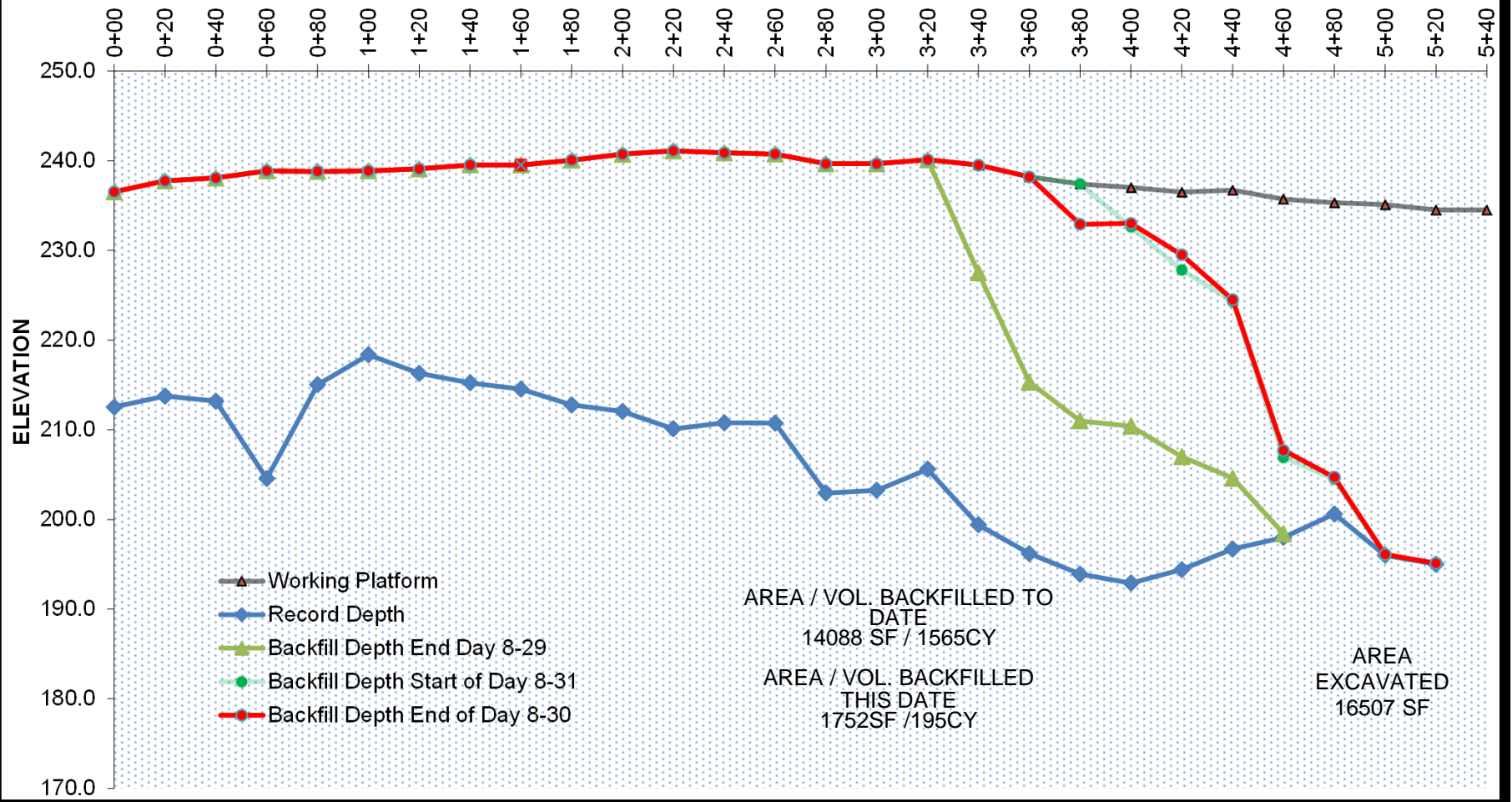
STATIONS



# MORETRENCH AMERICAN CORPORATION

Shepley's Hill Landfill  
Devens, MA  
8-30-12

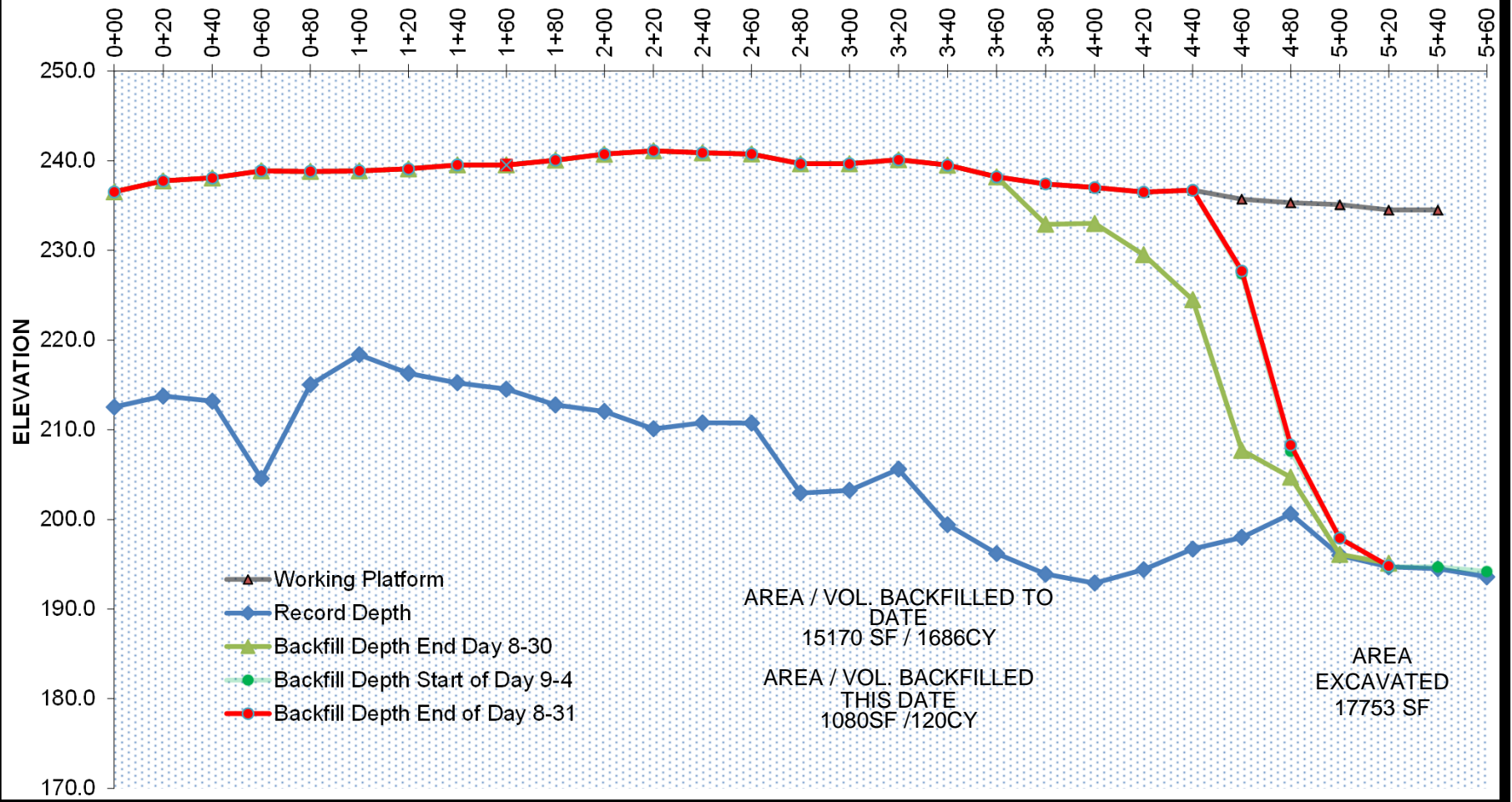
STATIONS



# MORETRENCH AMERICAN CORPORATION

Shepley's Hill Landfill  
Devens, MA  
8-31-12

STATIONS

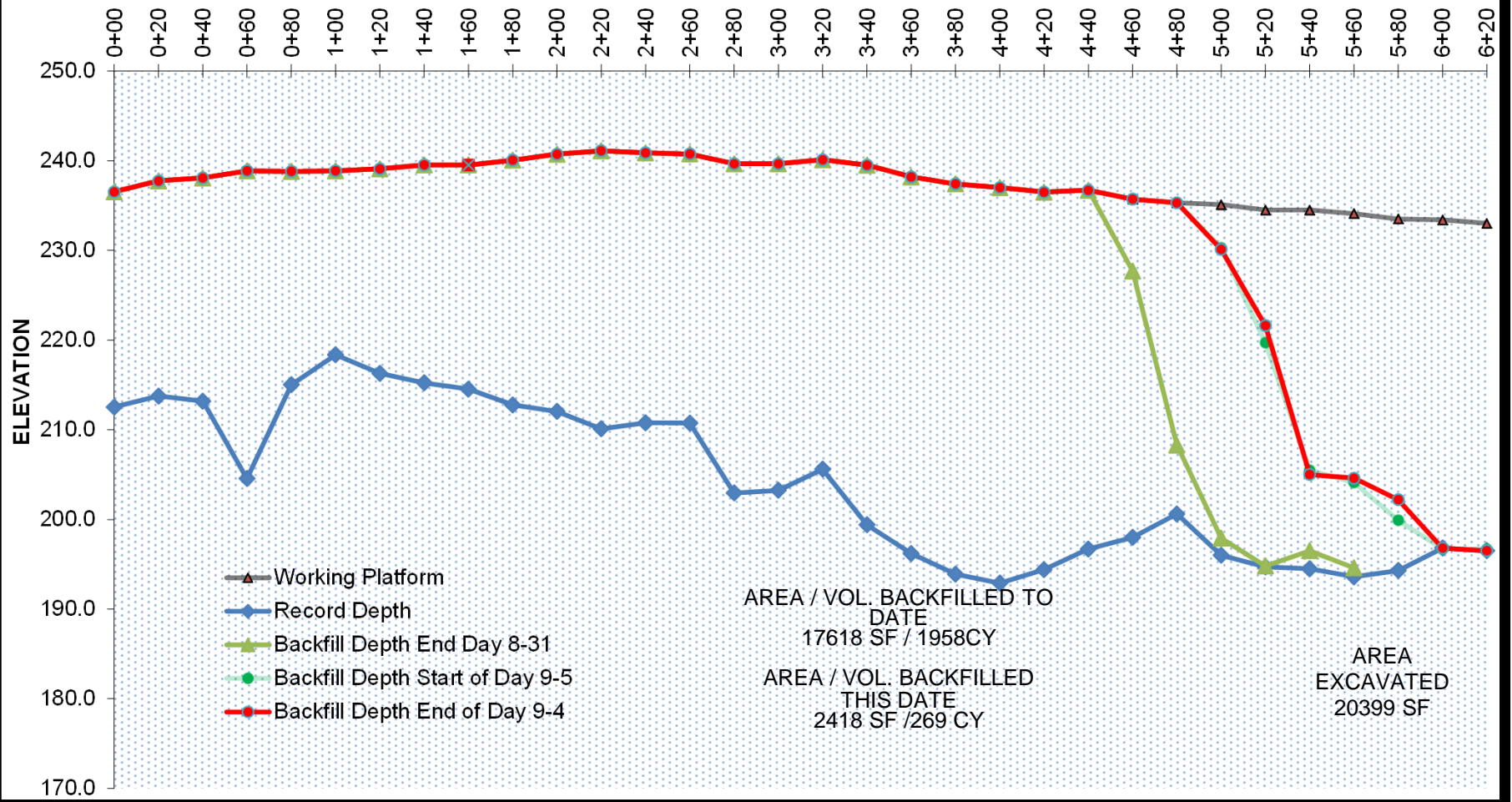




# MORETRENCH AMERICAN CORPORATION

Shepley's Hill Landfill  
Devens, MA  
9-4-12

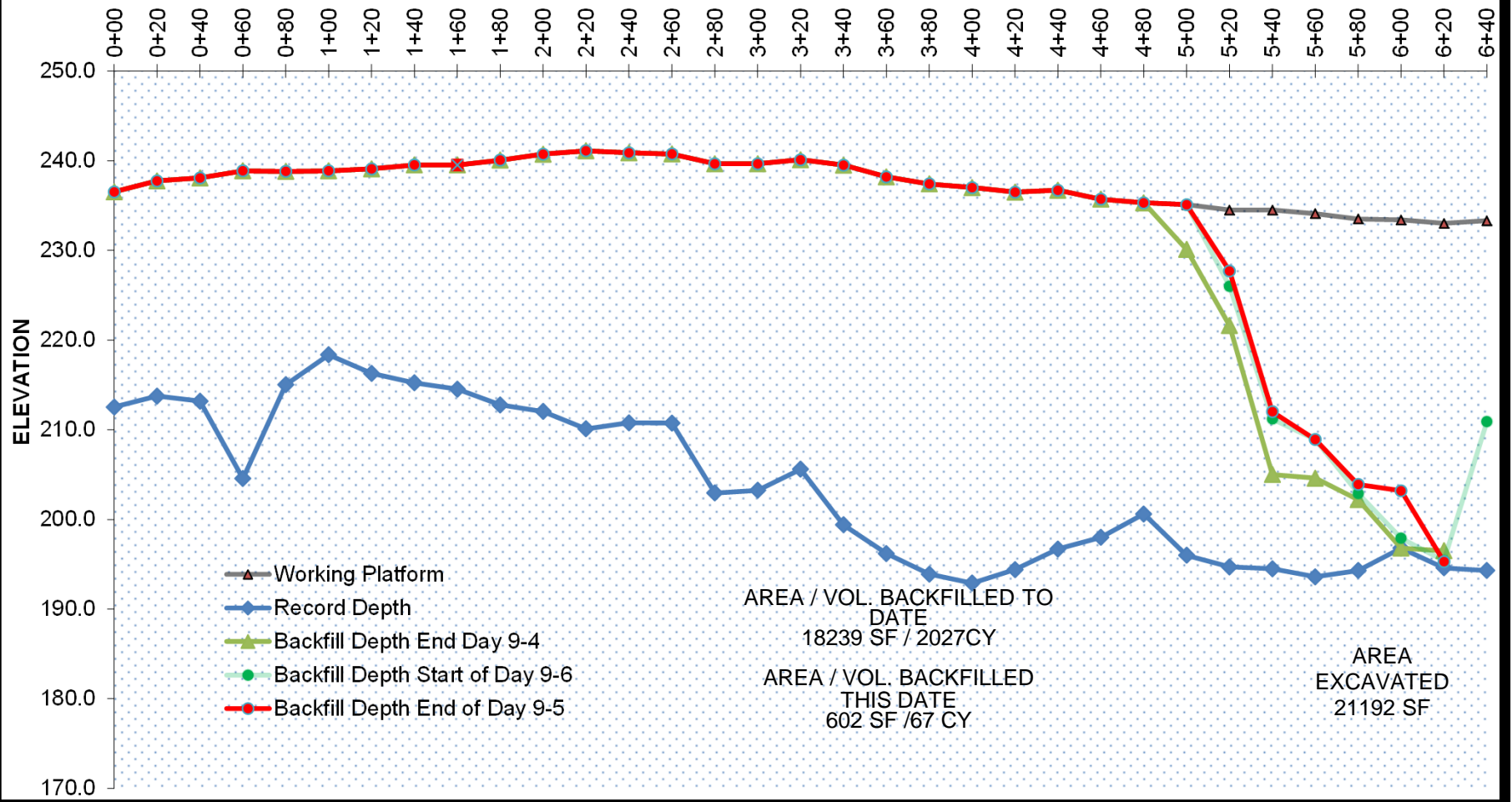
STATIONS



# MORETRENCH AMERICAN CORPORATION

Shepley's Hill Landfill  
Devens, MA  
9-5-12

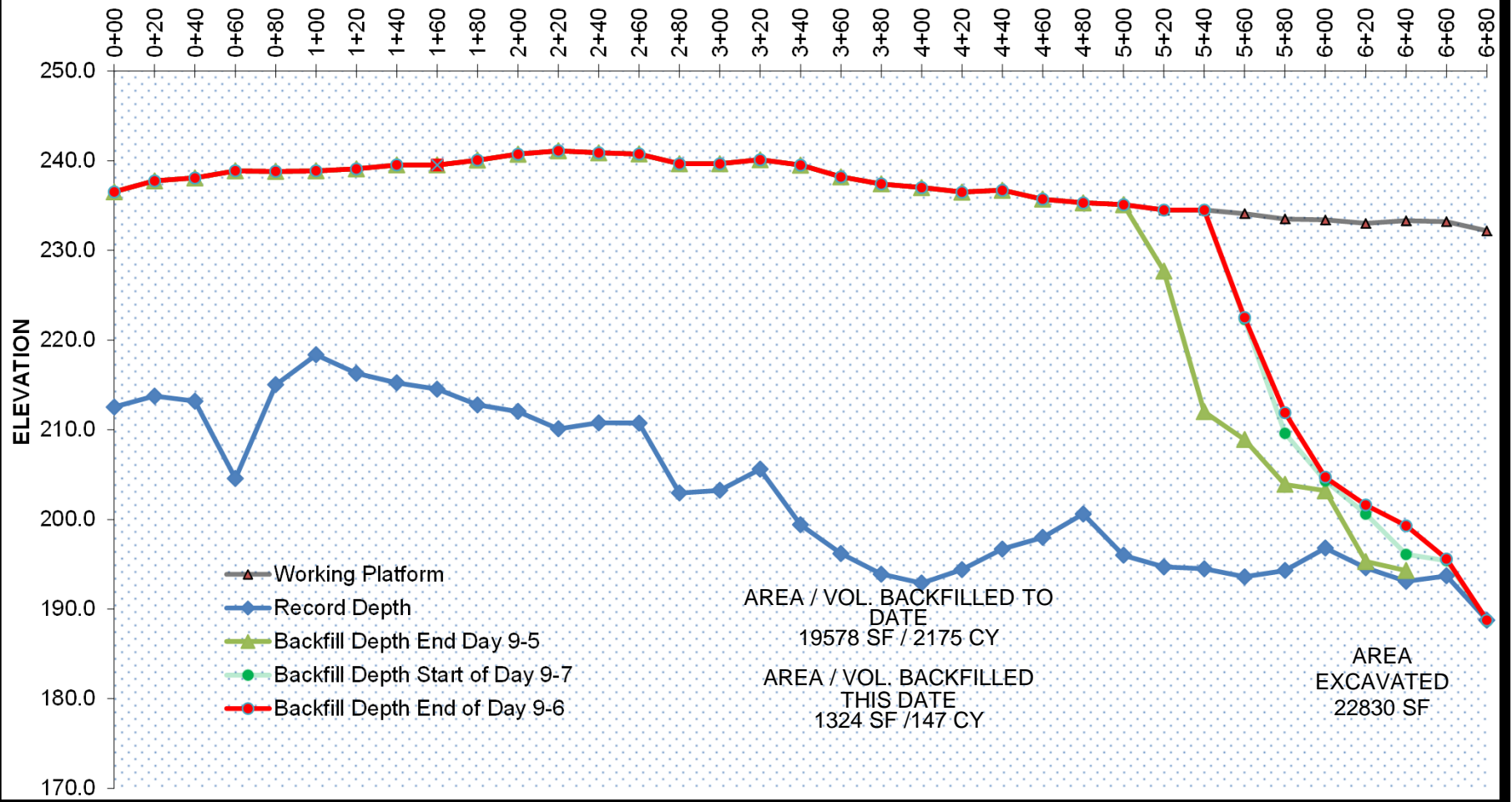
STATIONS



# MORETRENCH AMERICAN CORPORATION

Shepley's Hill Landfill  
Devens, MA  
9-6-12

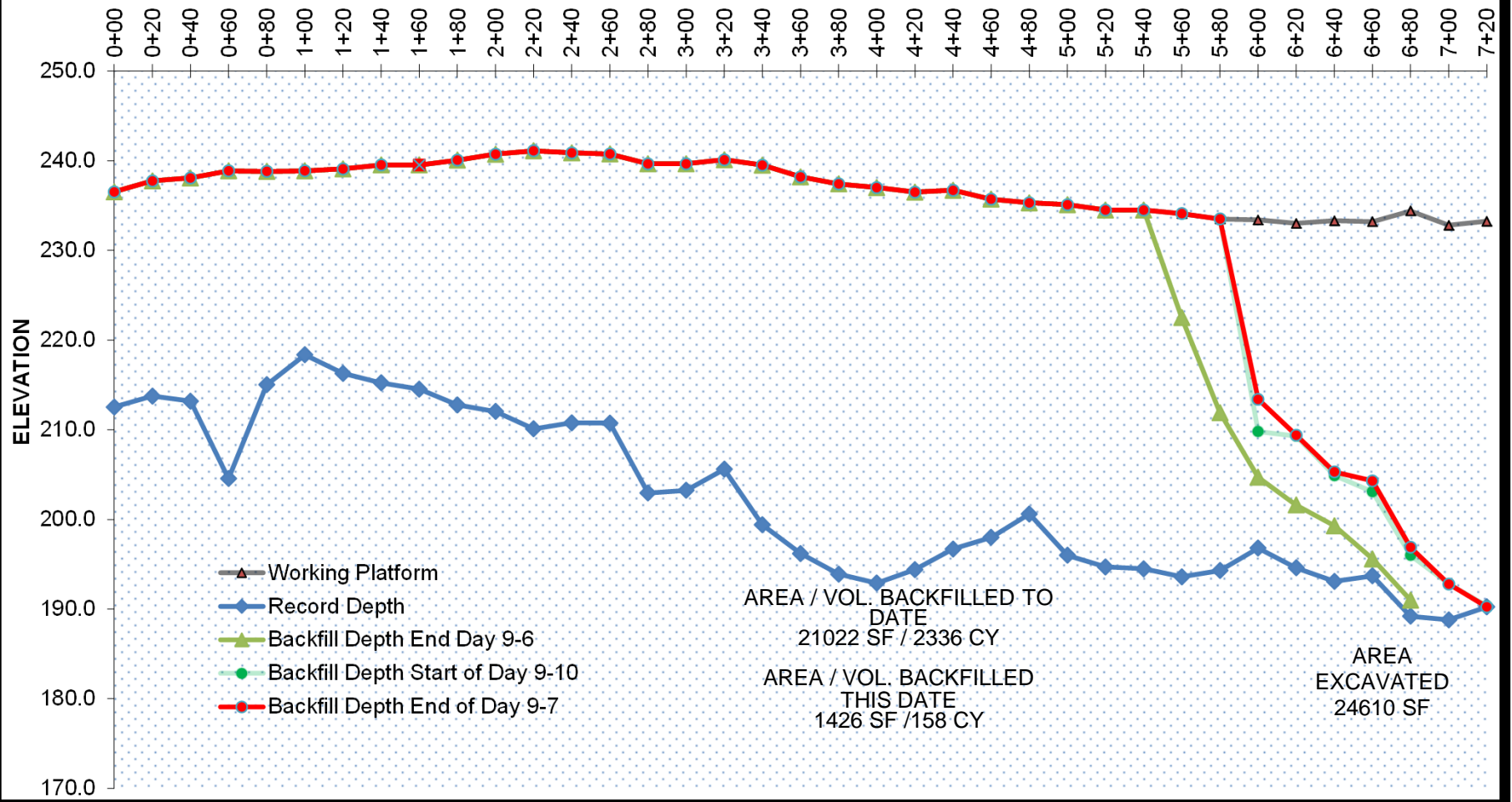
STATIONS



# MORETRENCH AMERICAN CORPORATION

Shepley's Hill Landfill  
Devens, MA  
9-7-12

STATIONS

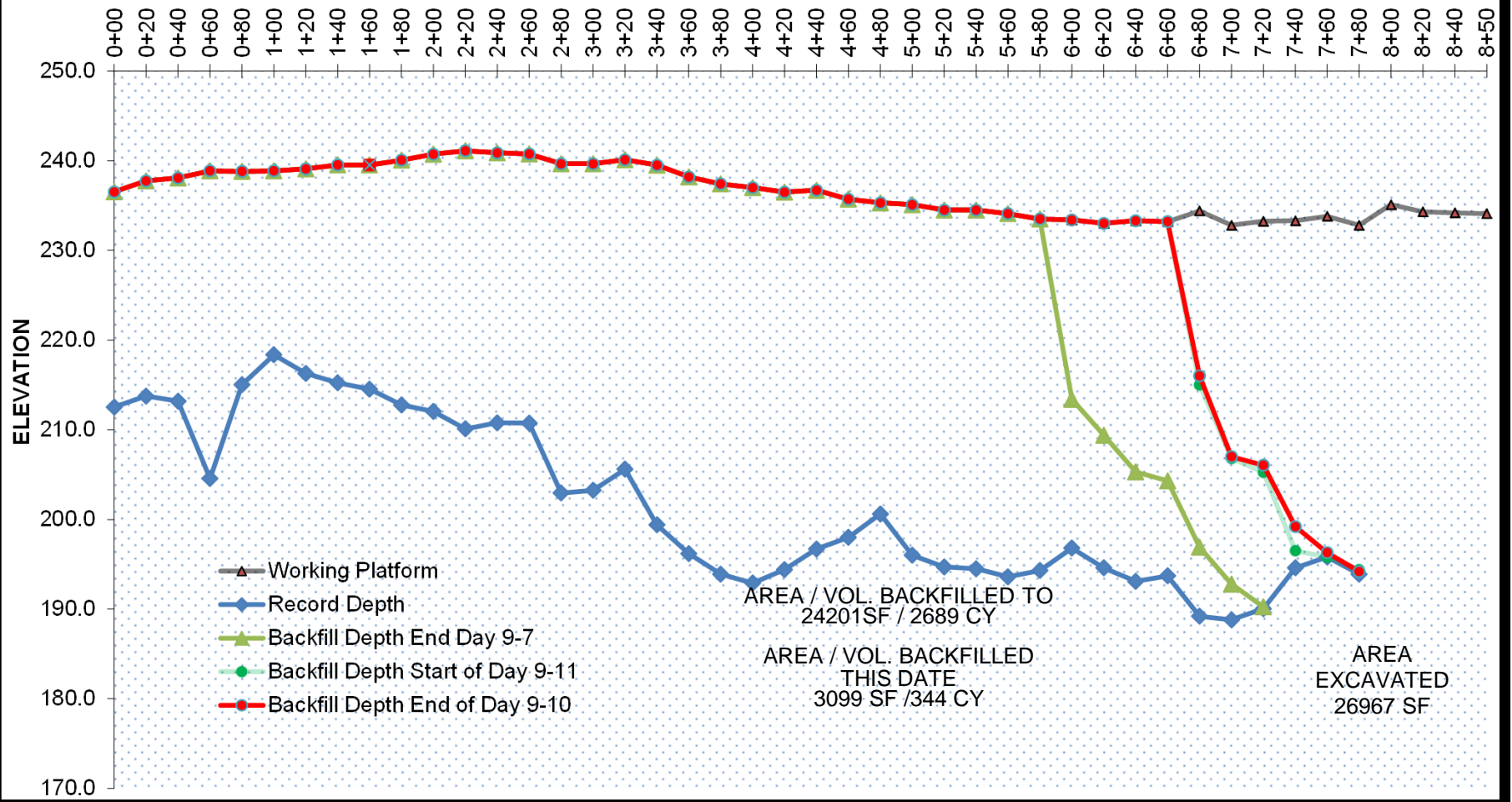




# MORETRENCH AMERICAN CORPORATION

Shepley's Hill Landfill  
Devens, MA  
9-10-12

STATIONS

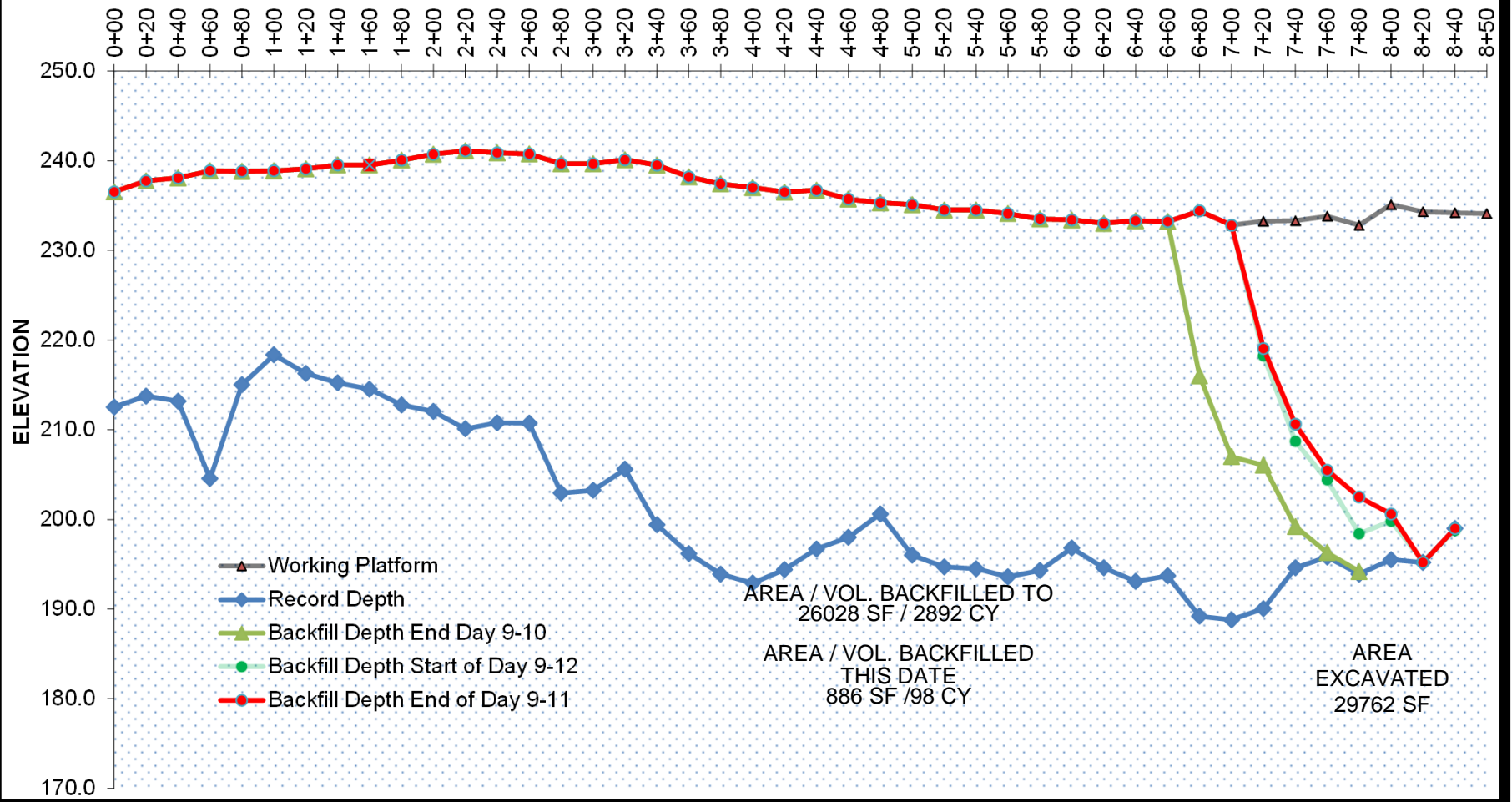




# MORETRENCH AMERICAN CORPORATION

Shepley's Hill Landfill  
Devens, MA  
9-11-12

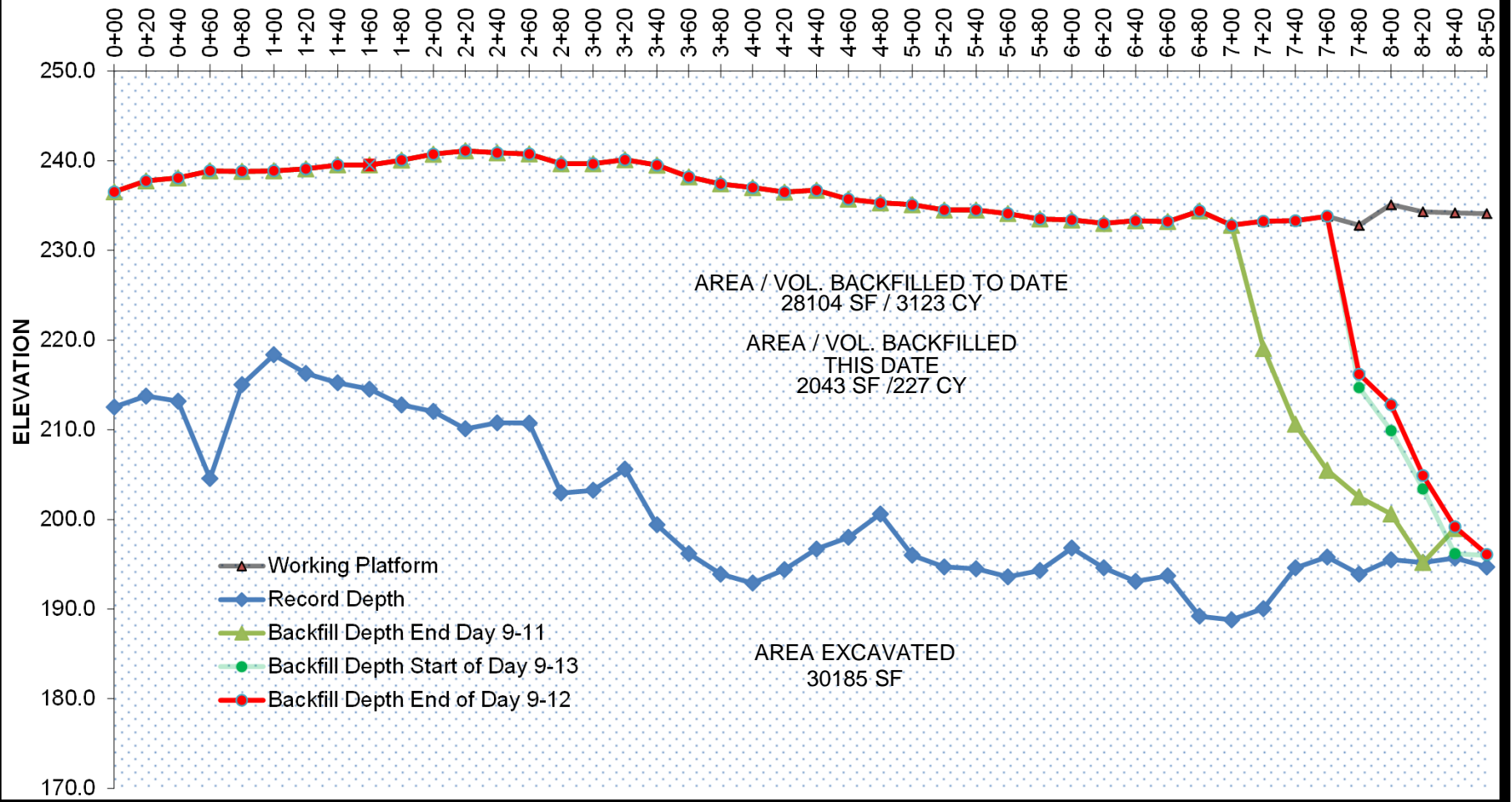
STATIONS



# MORETRENCH AMERICAN CORPORATION

Shepley's Hill Landfill  
Devens, MA  
9-12-12

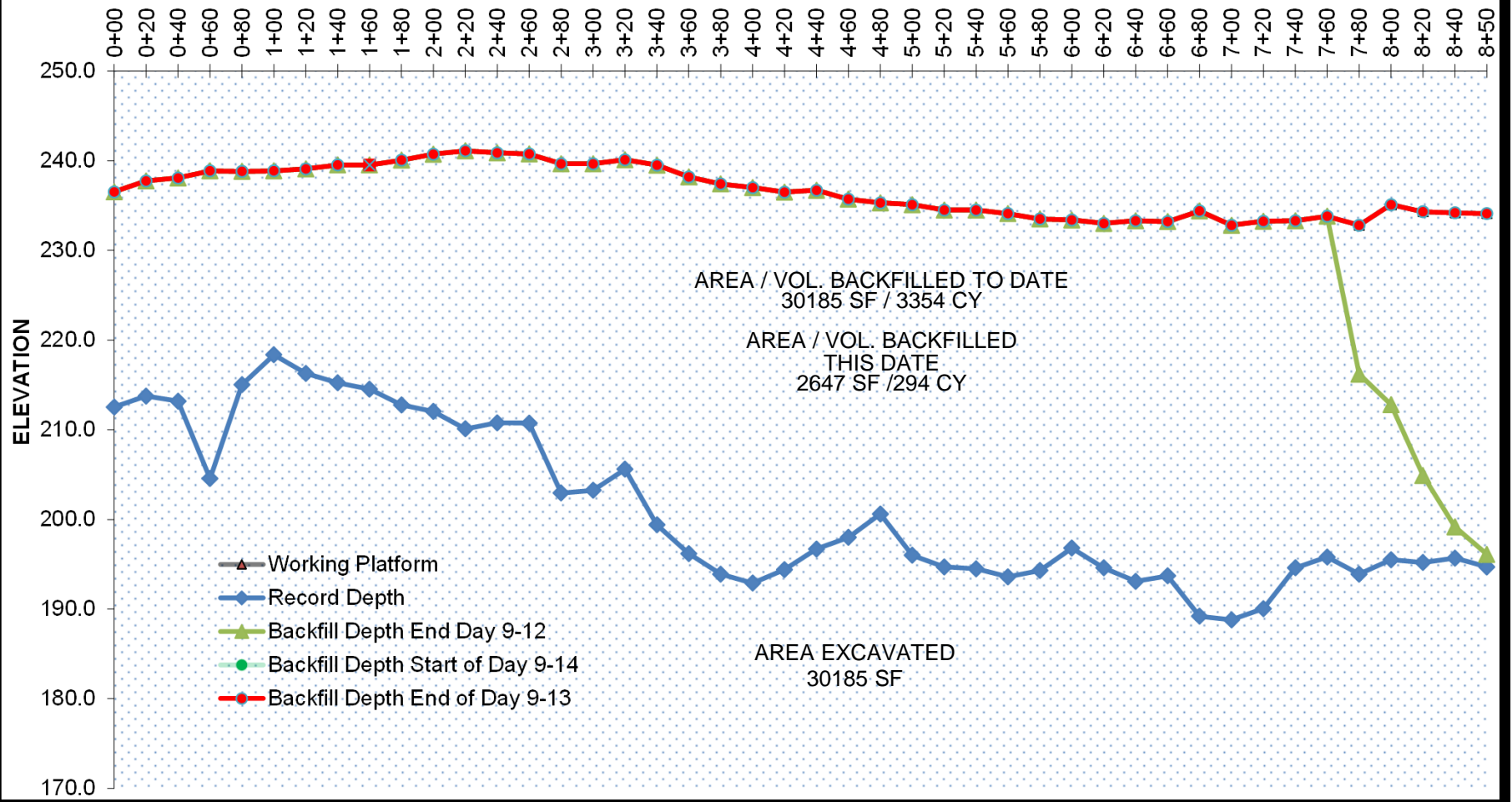
STATIONS



# MORETRENCH AMERICAN CORPORATION

Shepley's Hill Landfill  
Devens, MA  
9-13-12

STATIONS





|                   |                           |              |
|-------------------|---------------------------|--------------|
| Client:           | Moretrench American Corp. |              |
| Project Name:     | Shepley Landfill          |              |
| Project Location: | Devens, MA                |              |
| Installer:        | ---                       |              |
| GTX #:            | 11659                     |              |
| Test Date:        | 10/19/12                  |              |
| Tested By:        | meo                       | Report #: 1  |
| Checked By:       | md                        | Page: 1 of 3 |

## Integrity of Nonreinforced Geomembrane Seams Produced Using Thermo-Fusion Methods by ASTM D 6392 peel & shear destructive test

|                    |                  |                  |               |
|--------------------|------------------|------------------|---------------|
| Upper Geomembrane: | 40 mil black PVC | Testing Machine: | Instron 1123  |
| Lower Geomembrane: | 30 mil grey PVC  | Testing Speed:   | 20 in/min     |
| Seaming Method:    | Glue Method      | Grips:           | ATS pneumatic |
|                    |                  | Specimen Size:   | 1 in x 8 in   |

|            |                |               |          |
|------------|----------------|---------------|----------|
| Sample ID: | Liner Sample 1 | Machine ID:   | 66       |
| Seam ID:   | ---            | Welder ID:    | HH       |
|            |                | Date Sampled: | 10/09/12 |

| Specimen Number | Peel Strength |                    |              |        |                    |              | Shear Strength |               |              |
|-----------------|---------------|--------------------|--------------|--------|--------------------|--------------|----------------|---------------|--------------|
|                 | Weld A        |                    |              | Weld B |                    |              |                |               |              |
|                 | lb./in        | Seam Separation, % | Failure Type | lb./in | Seam Separation, % | Failure Type | lb./in         | Elongation, % | Rupture Mode |
| 1               | 34            | 100%               | AD           | ---    | ---                | ---          | 58             | 450%          | both         |
| 2               | 36            | 100%               | AD           | ---    | ---                | ---          | 59             | 500%          | both         |
| 3               | 39            | 100%               | AD           | ---    | ---                | ---          | 59             | 500%          | both         |
| 4               | 34            | 100%               | AD           | ---    | ---                | ---          | 55             | 550%          | both         |
| 5               | 34            | 100%               | AD           | ---    | ---                | ---          | 56             | 600%          | both         |
| Average         | 35            | ---                | ---          | ---    | ---                | ---          | 57             | ---           | ---          |

Comments:

Estimate of seam separation visually determined based upon area of separated bond to the nearest 5%.

Shear test halted for HDPE and LMDPE materials once specimen has elongated 50%.

Shear test halted for PVC, fPP, LLDPE, VFPE and VLDPE once specimen has elongated past machine capacity.

Rupture mode for specimens with >50% elongation (HDPE and LMDPE) or > machine capacity (PVC, fPP, LLDPE, VFPE and VLDPE) interpreted as occurring in the membrane that exhibits yielding.

Notes: These results apply only to the sample tested for the specific test conditions. The test procedures employed follow accepted industry practice and the indicated test method. GeoTesting Express has no specific knowledge as to conditioning, origin, sampling procedure or intended use of the material.



|                   |                           |
|-------------------|---------------------------|
| Client:           | Moretrench American Corp. |
| Project Name:     | Shepley Landfill          |
| Project Location: | Devens, MA                |
| Installer:        | ---                       |
| GTX #:            | 11659                     |
| Test Date:        | 10/19/12                  |
| Tested By:        | meo                       |
| Checked By:       | md                        |
| Report #:         | 1                         |
| Page:             | 2 of 3                    |

## Integrity of Nonreinforced Geomembrane Seams Produced Using Thermo-Fusion Methods by ASTM D 6392 peel & shear destructive test

|                    |                  |                  |               |
|--------------------|------------------|------------------|---------------|
| Upper Geomembrane: | 40 mil black PVC | Testing Machine: | Instron 1123  |
| Lower Geomembrane: | 30 mil grey PVC  | Testing Speed:   | 20 in/min     |
| Seaming Method:    | Glue Method      | Grips:           | ATS pneumatic |
|                    |                  | Specimen Size:   | 1 in x 8 in   |

|            |                |               |          |
|------------|----------------|---------------|----------|
| Sample ID: | Liner Sample 2 | Machine ID:   | 66       |
| Seam ID:   | ---            | Welder ID:    | HH       |
|            |                | Date Sampled: | 10/09/12 |

| Specimen Number | Peel Strength |                    |              |        |                    |              | Shear Strength |               |              |
|-----------------|---------------|--------------------|--------------|--------|--------------------|--------------|----------------|---------------|--------------|
|                 | Weld A        |                    |              | Weld B |                    |              |                |               |              |
|                 | lb./in        | Seam Separation, % | Failure Type | lb./in | Seam Separation, % | Failure Type | lb./in         | Elongation, % | Rupture Mode |
| 1               | 32            | 100%               | AD           | ---    | ---                | ---          | 57             | 450%          | both         |
| 2               | 29            | 100%               | AD           | ---    | ---                | ---          | 52             | 500%          | both         |
| 3               | 26            | 100%               | AD           | ---    | ---                | ---          | 53             | 550%          | both         |
| 4               | 21            | 100%               | AD           | ---    | ---                | ---          | 56             | 450%          | both         |
| 5               | 18            | 100%               | AD           | ---    | ---                | ---          | 57             | 500%          | both         |
| Average         | 25            | ---                | ---          | ---    | ---                | ---          | 55             | ---           | ---          |

Comments: Estimate of seam separation visually determined based upon area of separated bond to the nearest 5%.

Shear test halted for HDPE and LMDPE materials once specimen has elongated 50%.  
Shear test halted for PVC, fPP, LLDPE, VFPE and VLDPE once specimen has elongated past machine capacity.

Rupture mode for specimens with >50% elongation (HDPE and LMDPE) or > machine capacity (PVC, fPP, LLDPE, VFPE and VLDPE) interpreted as occurring in the membrane that exhibits yielding.

Notes: These results apply only to the sample tested for the specific test conditions. The test procedures employed follow accepted industry practice and the indicated test method. GeoTesting Express has no specific knowledge as to conditioning, origin, sampling procedure or intended use of the material.



|                   |                           |
|-------------------|---------------------------|
| Client:           | Moretrench American Corp. |
| Project Name:     | Shepley Landfill          |
| Project Location: | Devens, MA                |
| Installer:        | ---                       |
| GTX #:            | 11659                     |
| Test Date:        | 10/19/12                  |
| Tested By:        | meo                       |
| Checked By:       | md                        |
| Report #:         | 1                         |
| Page:             | 3 of 3                    |

## Integrity of Nonreinforced Geomembrane Seams Produced Using Thermo-Fusion Methods by ASTM D 6392 peel & shear destructive test

|                    |                  |                  |               |
|--------------------|------------------|------------------|---------------|
| Upper Geomembrane: | 40 mil black PVC | Testing Machine: | Instron 1123  |
| Lower Geomembrane: | 30 mil grey PVC  | Testing Speed:   | 20 in/min     |
| Seaming Method:    | Glue Method      | Grips:           | ATS pneumatic |
|                    |                  | Specimen Size:   | 1 in x 8 in   |

|            |                |               |          |
|------------|----------------|---------------|----------|
| Sample ID: | Liner Sample 3 | Machine ID:   | 66       |
| Seam ID:   | ---            | Welder ID:    | HH       |
|            |                | Date Sampled: | 10/09/12 |

| Specimen Number | Peel Strength |                    |              |        |                    |              | Shear Strength |               |              |
|-----------------|---------------|--------------------|--------------|--------|--------------------|--------------|----------------|---------------|--------------|
|                 | Weld A        |                    |              | Weld B |                    |              |                |               |              |
|                 | lb./in        | Seam Separation, % | Failure Type | lb./in | Seam Separation, % | Failure Type | lb./in         | Elongation, % | Rupture Mode |
| 1               | 27            | 100%               | AD           | ---    | ---                | ---          | 57             | 650%          | both         |
| 2               | 31            | 100%               | AD           | ---    | ---                | ---          | 58             | 700%          | both         |
| 3               | 35            | 100%               | AD           | ---    | ---                | ---          | 56             | 750%          | both         |
| 4               | 32            | 100%               | AD           | ---    | ---                | ---          | 57             | 600%          | both         |
| 5               | 31            | 100%               | AD           | ---    | ---                | ---          | 59             | 700%          | both         |
| Average         | 31            | ---                | ---          | ---    | ---                | ---          | 57             | ---           | ---          |

Comments: Estimate of seam separation visually determined based upon area of separated bond to the nearest 5%.

Shear test halted for HDPE and LMDPE materials once specimen has elongated 50%.  
Shear test halted for PVC, fPP, LLDPE, VFPE and VLDPE once specimen has elongated past machine capacity.

Rupture mode for specimens with >50% elongation (HDPE and LMDPE) or > machine capacity (PVC, fPP, LLDPE, VFPE and VLDPE) interpreted as occurring in the membrane that exhibits yielding.

Notes: These results apply only to the sample tested for the specific test conditions. The test procedures employed follow accepted industry practice and the indicated test method. GeoTesting Express has no specific knowledge as to conditioning, origin, sampling procedure or intended use of the material.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                      |                                          |             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                      | REPORT NUMBER<br>815                     | Page 1 of 2 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                      | DATE<br>23 Jul 2012 - Monday             |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                      | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | WEATHER<br>Weather Caused No Delay<br>Temperature Min 68 °F, Max 87 °F; No Precipitation; 5 MPH Wind |                                          |             |
| <b>QC NARRATIVES</b><br><br><b>Contractor/Subcontractor &amp; Area of Responsibility for work:</b><br>Sovereign - Provided oversight of Mortrench and it subcontractors. Provided on-site QC and documentation<br>Mortrech - Provided oversight of its subcontractors WSP Sells and Gatsby Grounds<br>WSP Sells - Pre-contruction Survey<br>Gatsby Grounds - Mowing<br><br><b>Activities in Progress (List by Activity Number)</b><br>DFW: Site Preparation in progress<br><br><b>Quality Control Inspections and Activities (List by Feature of Work)</b><br>No QC inspection conducted during the day.<br><br><b>Did anything develop that may lead to a Change Order/Claim?</b><br>No developments that may lead to a Change Oder during the day.<br><br><b>Were there any Delays in Work Progress today?</b><br>No delays in work progress during the day.<br><br><b>General Comments:</b><br>Work Completed During the Day:<br><br>Sovereign: Provided oversight and on-site QC of Moretrench and their subcontractors. Took photo documentation of exsisting conditions along the barrier wall alignment and work platform areas prior to mowing. Photo IDs: 072312-01 through -51.<br><br>Moretrench: Provided oversight of their subcontractors WSP Sells and Gatsby Grounds.<br><br>Gatsby Grounds: Conducted mowing activites in area of barrier wall and working platform<br>WSP Sells: Completed pre-construction survey of grade, barrier wall alignment, and off-sets along the working platform area.<br><br>After discovering landfill liner in the area to the south / southwest of the current stockpiled soils it was determined by Sovereign and Moretrench to moving the proposed staggering area from this location the area east of the the current stockpiled soils.<br><br><b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP reviewed and signed.<br>Gatsby Grounds mowing equipment inspected prior to use. |                                                                                                      |                                          |             |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                      |                                          |             |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                      |                                          |             |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                      |                                          |             |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                      |                                          |             |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                      | REPORT NUMBER<br>815 <span style="float: right;">Page 2 of 2</span> |                           |          |                      |                        |                 |           |                      |     |     |           |                      |     |     |           |          |     |      |           |             |     |     |                                  |  |           |      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|---------------------------------------------------------------------|---------------------------|----------|----------------------|------------------------|-----------------|-----------|----------------------|-----|-----|-----------|----------------------|-----|-----|-----------|----------|-----|------|-----------|-------------|-----|-----|----------------------------------|--|-----------|------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                      | DATE<br>23 Jul 2012 - Monday                                        |                           |          |                      |                        |                 |           |                      |     |     |           |                      |     |     |           |          |     |      |           |             |     |     |                                  |  |           |      |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                      | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                            |                           |          |                      |                        |                 |           |                      |     |     |           |                      |     |     |           |          |     |      |           |             |     |     |                                  |  |           |      |
| <b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                      |                                                                     |                           |          |                      |                        |                 |           |                      |     |     |           |                      |     |     |           |          |     |      |           |             |     |     |                                  |  |           |      |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>Today was the first day on site for the following contractor:</b><br>Sovereign<br><b>No contractors had their last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                      |                                                                     |                           |          |                      |                        |                 |           |                      |     |     |           |                      |     |     |           |          |     |      |           |             |     |     |                                  |  |           |      |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: center;">Number of<br/>Employees</th> <th style="text-align: center;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>LANDSCAPE CONTRACTOR</td> <td style="text-align: center;">1.0</td> <td style="text-align: center;">2.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: center;">1.0</td> <td style="text-align: center;">8.5</td> </tr> <tr> <td>Moretrech</td> <td>SURVEYOR</td> <td style="text-align: center;">2.0</td> <td style="text-align: center;">13.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: center;">1.0</td> <td style="text-align: center;">9.3</td> </tr> <tr> <td colspan="2">Total hours worked to date: 32.8</td> <td style="text-align: center;">Total 5.0</td> <td style="text-align: center;">32.8</td> </tr> </tbody> </table> |                      |                                                                     |                           | Employer | Labor Classification | Number of<br>Employees | Hours<br>Worked | Moretrech | LANDSCAPE CONTRACTOR | 1.0 | 2.0 | Moretrech | SUPER - CONSTRUCTION | 1.0 | 8.5 | Moretrech | SURVEYOR | 2.0 | 13.0 | Sovereign | SUPER - JOB | 1.0 | 9.3 | Total hours worked to date: 32.8 |  | Total 5.0 | 32.8 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Labor Classification | Number of<br>Employees                                              | Hours<br>Worked           |          |                      |                        |                 |           |                      |     |     |           |                      |     |     |           |          |     |      |           |             |     |     |                                  |  |           |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | LANDSCAPE CONTRACTOR | 1.0                                                                 | 2.0                       |          |                      |                        |                 |           |                      |     |     |           |                      |     |     |           |          |     |      |           |             |     |     |                                  |  |           |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | SUPER - CONSTRUCTION | 1.0                                                                 | 8.5                       |          |                      |                        |                 |           |                      |     |     |           |                      |     |     |           |          |     |      |           |             |     |     |                                  |  |           |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | SURVEYOR             | 2.0                                                                 | 13.0                      |          |                      |                        |                 |           |                      |     |     |           |                      |     |     |           |          |     |      |           |             |     |     |                                  |  |           |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | SUPER - JOB          | 1.0                                                                 | 9.3                       |          |                      |                        |                 |           |                      |     |     |           |                      |     |     |           |          |     |      |           |             |     |     |                                  |  |           |      |
| Total hours worked to date: 32.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                      | Total 5.0                                                           | 32.8                      |          |                      |                        |                 |           |                      |     |     |           |                      |     |     |           |          |     |      |           |             |     |     |                                  |  |           |      |
| <b>EQUIPMENT HOURS</b><br><b>No equipment hours were Reported today</b><br>Total operating hours to date: 0.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                      |                                                                     |                           |          |                      |                        |                 |           |                      |     |     |           |                      |     |     |           |          |     |      |           |             |     |     |                                  |  |           |      |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                      |                                                                     |                           |          |                      |                        |                 |           |                      |     |     |           |                      |     |     |           |          |     |      |           |             |     |     |                                  |  |           |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                      |                                                                     |                           |          |                      |                        |                 |           |                      |     |     |           |                      |     |     |           |          |     |      |           |             |     |     |                                  |  |           |      |
| <b>CONTRACTOR CERTIFICATION</b> <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                      |                                                                     |                           |          |                      |                        |                 |           |                      |     |     |           |                      |     |     |           |          |     |      |           |             |     |     |                                  |  |           |      |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                      | DATE                                                                | SUPERINTENDENT'S INITIALS |          |                      |                        |                 |           |                      |     |     |           |                      |     |     |           |          |     |      |           |             |     |     |                                  |  |           |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                      |                                                                     | DATE                      |          |                      |                        |                 |           |                      |     |     |           |                      |     |     |           |          |     |      |           |             |     |     |                                  |  |           |      |



|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                      |                                          |             |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                      | REPORT NUMBER<br>816                     | Page 1 of 2 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                      | DATE<br>24 Jul 2012 - Tuesday            |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                      | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | WEATHER<br>Weather Caused No Delay<br>Temperature Min 76 °F, Max 86 °F; No Precipitation; 5 MPH Wind |                                          |             |
| <b>QC NARRATIVES</b><br><br><b>Contractor/Subcontractor &amp; Area of Responsibility for work:</b><br>Sovereign - Provided oversight of Mortrench. Provided on-site QC and documentation<br>Mortrech - Conducted layout of staggering area.<br><br><b>Activities in Progress (List by Activity Number)</b><br>DFW: Site Preparation in progress<br><br><b>Quality Control Inspections and Activities (List by Feature of Work)</b><br>No QC inspection conducted during the day.<br><br><b>Did anything develop that may lead to a Change Order/Claim?</b><br>No developments that may lead to a Change Oder during the day.<br><br><b>Were there any Delays in Work Progress today?</b><br>No delays in work progress during the day.<br><br><b>General Comments:</b><br>Work Completed During the Day:<br><br>Sovereign: Provided oversight and on-site QC of Moretrench. Took photo documentation of of pre-construction conditions along the barrier wall alignment and work platform areas following to mowing and pre-construction survey activites completed on the prior day. Photo IDs: 072412-01 through -29. Continued demobliziation of storage container used during pre-construction sub-surface investigation.<br><br>Moretrench: Condcuted layout of staggering area to the east of the exsisting soil stock piles.<br><br><b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. |                                                                                                      |                                          |             |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                      |                                          |             |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                      |                                          |             |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                      |                                          |             |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                      |                                          |             |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                      |                                          |             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                      |                                          |             |

|                                                                                                                                                                                                                                                                                                                       |                      |                                                                     |                                   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|---------------------------------------------------------------------|-----------------------------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                   |                      | REPORT NUMBER<br>816 <span style="float: right;">Page 2 of 2</span> |                                   |
|                                                                                                                                                                                                                                                                                                                       |                      | DATE<br>24 Jul 2012 - Tuesday                                       |                                   |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                      |                      | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                            |                                   |
| <b>LABOR HOURS</b><br>The following labor hours were Reported today:                                                                                                                                                                                                                                                  |                      |                                                                     |                                   |
| Employer                                                                                                                                                                                                                                                                                                              | Labor Classification | Number of Employees                                                 | Hours Worked                      |
| Moretrech                                                                                                                                                                                                                                                                                                             | SUPER - CONSTRUCTION | 1.0                                                                 | 4.0                               |
| Sovereign                                                                                                                                                                                                                                                                                                             | SUPER - JOB          | 1.0                                                                 | 4.0                               |
| Total hours worked to date: 40.8                                                                                                                                                                                                                                                                                      |                      | Total                                                               | 2.0                               |
| <b>EQUIPMENT HOURS</b><br>No equipment hours were Reported today<br>Total operating hours to date: 0.00                                                                                                                                                                                                               |                      |                                                                     |                                   |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br>No accidents reported today                                                                                                                                                                                                                                         |                      |                                                                     |                                   |
|                                                                                                                                                                                                                                                                                                                       |                      |                                                                     |                                   |
| CONTRACTOR CERTIFICATION <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b> |                      |                                                                     |                                   |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                         |                      | DATE                                                                | SUPERINTENDENT'S INITIALS<br>DATE |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                       |                                          |             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                       | REPORT NUMBER<br>817                     | Page 1 of 2 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                       | DATE<br>25 Jul 2012 - Wednesday          |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                       | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | WEATHER<br>Weather Caused No Delay<br>Temperature Min 67 °F, Max 73 °F; No Precipitation; 15 MPH Wind |                                          |             |
| <b>QC NARRATIVES</b><br><br><b>Contractor/Subcontractor &amp; Area of Responsibility for work:</b><br>Sovereign - Provided oversight of Drillex. Provided on-site QC and documentation.<br>Drillex - Conducted decommissioning of four (4) EPA piezometers<br><br><b>Activities in Progress (List by Activity Number)</b><br>DFW: Mobilization / Site Preparation in progress<br><br><b>Quality Control Inspections and Activities (List by Feature of Work)</b><br>No QC inspection conducted during the day.<br><br><b>Did anything develop that may lead to a Change Order/Claim?</b><br>No developments that may lead to a Change Oder during the day.<br><br><b>Were there any Delays in Work Progress today?</b><br>No delays in work progress during the day.<br><br><b>General Comments:</b><br>Work Completed During the Day:<br><br>Sovereign: Provided oversight and on-site QC of Drillex. Took photo documentation of post abandonment of EPA RSK piezometers along the barrier wall alignment and work platform areas. Photo IDs: 072512-01 through -04.<br><br>Drillex: Condcuted abandonment of EPA piezometers RSK-26,-29,-30 and -33. RSK-26,-30 and -30 were unable to be completely removed from the subsurface. RSK-26 and -30 were cut approximately 1 foot below grade surface. RSK-33 was removed down to 5 feet below grade surface by removing the first 5 feet of casing. RSK-29 was able to be removed completely from the subsurface. All piezometers were grouted to surface with Portalnd Cement.<br><br>Materials Brought on Site:<br><br>Type I/II Portland Cement<br><br><b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP reviewed prior to start of work activities. |                                                                                                       |                                          |             |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                       |                                          |             |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                       |                                          |             |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                       |                                          |             |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                       |                                          |             |
| Empty space for additional notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                       |                                          |             |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                      | REPORT NUMBER<br>817                     |                           | Page 2 of 2 |          |                      |                        |                 |              |                  |     |     |           |             |     |     |                                  |  |           |     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------------------------------|---------------------------|-------------|----------|----------------------|------------------------|-----------------|--------------|------------------|-----|-----|-----------|-------------|-----|-----|----------------------------------|--|-----------|-----|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                      | DATE<br>25 Jul 2012 - Wednesday          |                           |             |          |                      |                        |                 |              |                  |     |     |           |             |     |     |                                  |  |           |     |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                      | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |                           |             |          |                      |                        |                 |              |                  |     |     |           |             |     |     |                                  |  |           |     |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><br><b>Today was the first day on site for the following contractor:</b><br>Drillex Env.<br><br><b>Today was the last day on site for the following contractor:</b><br>Drillex Env.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                      |                                          |                           |             |          |                      |                        |                 |              |                  |     |     |           |             |     |     |                                  |  |           |     |
| <b>LABOR HOURS</b><br><br><b>The following labor hours were Reported today:</b> <table border="0" style="width: 100%;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Drillex Env.</td> <td>DRILLER OPERATOR</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">2.5</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">3.5</td> </tr> <tr> <td colspan="2">Total hours worked to date: 46.8</td> <td style="text-align: right;">Total 2.0</td> <td style="text-align: right;">6.0</td> </tr> </tbody> </table> |                      |                                          |                           |             | Employer | Labor Classification | Number of<br>Employees | Hours<br>Worked | Drillex Env. | DRILLER OPERATOR | 1.0 | 2.5 | Sovereign | SUPER - JOB | 1.0 | 3.5 | Total hours worked to date: 46.8 |  | Total 2.0 | 6.0 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Labor Classification | Number of<br>Employees                   | Hours<br>Worked           |             |          |                      |                        |                 |              |                  |     |     |           |             |     |     |                                  |  |           |     |
| Drillex Env.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | DRILLER OPERATOR     | 1.0                                      | 2.5                       |             |          |                      |                        |                 |              |                  |     |     |           |             |     |     |                                  |  |           |     |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | SUPER - JOB          | 1.0                                      | 3.5                       |             |          |                      |                        |                 |              |                  |     |     |           |             |     |     |                                  |  |           |     |
| Total hours worked to date: 46.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                      | Total 2.0                                | 6.0                       |             |          |                      |                        |                 |              |                  |     |     |           |             |     |     |                                  |  |           |     |
| <b>EQUIPMENT HOURS</b><br><br><b>No equipment hours were Reported today</b><br>Total operating hours to date: 0.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                      |                                          |                           |             |          |                      |                        |                 |              |                  |     |     |           |             |     |     |                                  |  |           |     |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                      |                                          |                           |             |          |                      |                        |                 |              |                  |     |     |           |             |     |     |                                  |  |           |     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                      |                                          |                           |             |          |                      |                        |                 |              |                  |     |     |           |             |     |     |                                  |  |           |     |
| <b>CONTRACTOR CERTIFICATION</b> <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                      |                                          |                           |             |          |                      |                        |                 |              |                  |     |     |           |             |     |     |                                  |  |           |     |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                      | DATE                                     | SUPERINTENDENT'S INITIALS |             |          |                      |                        |                 |              |                  |     |     |           |             |     |     |                                  |  |           |     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                      |                                          |                           |             |          |                      |                        |                 |              |                  |     |     |           |             |     |     |                                  |  |           |     |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                      |                                          |             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                      | REPORT NUMBER<br>822                     | Page 1 of 2 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                      | DATE<br>30 Jul 2012 - Monday             |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                      | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | WEATHER<br>Weather Caused No Delay<br>Temperature Min 60 °F, Max 78 °F; No Precipitation; 5 MPH Wind |                                          |             |
| <b>QC NARRATIVES</b><br><br><b>Contractor/Subcontractor &amp; Area of Responsibility for work:</b><br>Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.<br>Moretrench - Conducted site prep. and mobilization<br><br><b>Activities in Progress (List by Activity Number)</b><br>DFW: Mobilization / Site Preparation in progress<br><br><b>Quality Control Inspections and Activities (List by Feature of Work)</b><br>No QC inspection conducted during the day.<br><br><b>Did anything develop that may lead to a Change Order/Claim?</b><br>No developments that may lead to a Change Oder during the day.<br><br><b>Were there any Delays in Work Progress today?</b><br>No delays in work progress during the day.<br><br><b>General Comments:</b><br>Work Completed During the Day:<br><br>Sovereign: Provided oversight and on-site QC of Moretrench.<br><br>Moretrench: Condcuted the fusing of approximately 1,000 linear feet of 6" HDPE pipe.<br><br>Materials Brought on Site:<br><br>4" and 6" HDPE<br><br>Equipment Brought on Site:<br><br>Temporary Facilities (port-o-john)<br><br>Catapillar 938G Loader<br><br><b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviuewed prior to start of work activties. |                                                                                                      |                                          |             |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                      |                                          |             |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                      |                                          |             |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                      |                                          |             |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                      |                                          |             |
| Empty space for additional notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                      |                                          |             |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          | REPORT NUMBER<br>822 <div style="text-align: right;">Page 2 of 2</div> |                 |               |                      |                     |                 |           |                          |      |      |           |          |       |      |                                     |                      |     |      |           |             |     |     |  |  |       |     |                                  |  |  |      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|------------------------------------------------------------------------|-----------------|---------------|----------------------|---------------------|-----------------|-----------|--------------------------|------|------|-----------|----------|-------|------|-------------------------------------|----------------------|-----|------|-----------|-------------|-----|-----|--|--|-------|-----|----------------------------------|--|--|------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                          | DATE<br>30 Jul 2012 - Monday                                           |                 |               |                      |                     |                 |           |                          |      |      |           |          |       |      |                                     |                      |     |      |           |             |     |     |  |  |       |     |                                  |  |  |      |
| CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                                                                        |                 |               |                      |                     |                 |           |                          |      |      |           |          |       |      |                                     |                      |     |      |           |             |     |     |  |  |       |     |                                  |  |  |      |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                          |                                                                        |                 |               |                      |                     |                 |           |                          |      |      |           |          |       |      |                                     |                      |     |      |           |             |     |     |  |  |       |     |                                  |  |  |      |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left; width: 25%;">Employer</th> <th style="text-align: left; width: 40%;">Labor Classification</th> <th style="text-align: right; width: 15%;">Number of Employees</th> <th style="text-align: right; width: 20%;">Hours Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">2.0</td> <td style="text-align: right;">16.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td colspan="2"></td> <td style="text-align: right; border-top: 1px solid black;">Total</td> <td style="text-align: right; border-top: 1px solid black;">5.0</td> </tr> <tr> <td colspan="2" style="padding-top: 10px;">Total hours worked to date: 86.8</td> <td></td> <td style="text-align: right; border-top: 1px solid black;">40.0</td> </tr> </tbody> </table> |                          |                                                                        |                 | Employer      | Labor Classification | Number of Employees | Hours Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 1.0  | 8.0  | Moretrech | LABORERS | 1.0   | 8.0  | Moretrech                           | SUPER - CONSTRUCTION | 2.0 | 16.0 | Sovereign | SUPER - JOB | 1.0 | 8.0 |  |  | Total | 5.0 | Total hours worked to date: 86.8 |  |  | 40.0 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Labor Classification     | Number of Employees                                                    | Hours Worked    |               |                      |                     |                 |           |                          |      |      |           |          |       |      |                                     |                      |     |      |           |             |     |     |  |  |       |     |                                  |  |  |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | HEAVY-EQUIPMENT OPERATOR | 1.0                                                                    | 8.0             |               |                      |                     |                 |           |                          |      |      |           |          |       |      |                                     |                      |     |      |           |             |     |     |  |  |       |     |                                  |  |  |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | LABORERS                 | 1.0                                                                    | 8.0             |               |                      |                     |                 |           |                          |      |      |           |          |       |      |                                     |                      |     |      |           |             |     |     |  |  |       |     |                                  |  |  |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | SUPER - CONSTRUCTION     | 2.0                                                                    | 16.0            |               |                      |                     |                 |           |                          |      |      |           |          |       |      |                                     |                      |     |      |           |             |     |     |  |  |       |     |                                  |  |  |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | SUPER - JOB              | 1.0                                                                    | 8.0             |               |                      |                     |                 |           |                          |      |      |           |          |       |      |                                     |                      |     |      |           |             |     |     |  |  |       |     |                                  |  |  |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          | Total                                                                  | 5.0             |               |                      |                     |                 |           |                          |      |      |           |          |       |      |                                     |                      |     |      |           |             |     |     |  |  |       |     |                                  |  |  |      |
| Total hours worked to date: 86.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                          |                                                                        | 40.0            |               |                      |                     |                 |           |                          |      |      |           |          |       |      |                                     |                      |     |      |           |             |     |     |  |  |       |     |                                  |  |  |      |
| <b>EQUIPMENT HOURS</b><br><b>The following equipment hours were Reported today:</b> <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left; width: 25%;">Serial Number</th> <th style="text-align: left; width: 40%;">Description</th> <th style="text-align: right; width: 15%;">Idle Hours</th> <th style="text-align: right; width: 20%;">Operating Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">0.50</td> <td style="text-align: right;">8.00</td> </tr> <tr> <td colspan="2"></td> <td style="text-align: right; border-top: 1px solid black;">Total</td> <td style="text-align: right; border-top: 1px solid black;">0.50</td> </tr> <tr> <td colspan="2" style="padding-top: 10px;">Total operating hours to date: 8.00</td> <td></td> <td style="text-align: right; border-top: 1px solid black;">8.00</td> </tr> </tbody> </table>                                                                                                                                                                                                                                                                                                                                                                                                                                     |                          |                                                                        |                 | Serial Number | Description          | Idle Hours          | Operating Hours | N/A       | Loader                   | 0.50 | 8.00 |           |          | Total | 0.50 | Total operating hours to date: 8.00 |                      |     | 8.00 |           |             |     |     |  |  |       |     |                                  |  |  |      |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Description              | Idle Hours                                                             | Operating Hours |               |                      |                     |                 |           |                          |      |      |           |          |       |      |                                     |                      |     |      |           |             |     |     |  |  |       |     |                                  |  |  |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Loader                   | 0.50                                                                   | 8.00            |               |                      |                     |                 |           |                          |      |      |           |          |       |      |                                     |                      |     |      |           |             |     |     |  |  |       |     |                                  |  |  |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          | Total                                                                  | 0.50            |               |                      |                     |                 |           |                          |      |      |           |          |       |      |                                     |                      |     |      |           |             |     |     |  |  |       |     |                                  |  |  |      |
| Total operating hours to date: 8.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          |                                                                        | 8.00            |               |                      |                     |                 |           |                          |      |      |           |          |       |      |                                     |                      |     |      |           |             |     |     |  |  |       |     |                                  |  |  |      |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                          |                                                                        |                 |               |                      |                     |                 |           |                          |      |      |           |          |       |      |                                     |                      |     |      |           |             |     |     |  |  |       |     |                                  |  |  |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |                                                                        |                 |               |                      |                     |                 |           |                          |      |      |           |          |       |      |                                     |                      |     |      |           |             |     |     |  |  |       |     |                                  |  |  |      |
| <b>CONTRACTOR CERTIFICATION</b> <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                          |                                                                        |                 |               |                      |                     |                 |           |                          |      |      |           |          |       |      |                                     |                      |     |      |           |             |     |     |  |  |       |     |                                  |  |  |      |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | DATE                     | SUPERINTENDENT'S INITIALS                                              | DATE            |               |                      |                     |                 |           |                          |      |      |           |          |       |      |                                     |                      |     |      |           |             |     |     |  |  |       |     |                                  |  |  |      |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                      |                                          |             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                      | REPORT NUMBER<br>823                     | Page 1 of 2 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                      | DATE<br>31 Jul 2012 - Tuesday            |             |
| PROJECT<br>Shepley's Landfill, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                      | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | WEATHER<br>Weather Caused No Delay<br>Temperature Min 63 °F, Max 83 °F; No Precipitation; 5 MPH Wind |                                          |             |
| <b>QC NARRATIVES</b><br><br><b>Contractor/Subcontractor &amp; Area of Responsibility for work:</b><br>Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.<br>Moretrench - Conducted site prep. and mobilization<br><br><b>Activities in Progress (List by Activity Number)</b><br>DFW: Mobilization / Site Preparation in progress<br><br><b>Quality Control Inspections and Activities (List by Feature of Work)</b><br>No QC inspection conducted during the day.<br><br><b>Did anything develop that may lead to a Change Order/Claim?</b><br>No developments that may lead to a Change Oder during the day.<br><br><b>Were there any Delays in Work Progress today?</b><br>No delays in work progress during the day.<br><br><b>General Comments:</b><br>Work Completed During the Day:<br><br>Sovereign: Provided oversight and on-site QC of Moretrench. Took photo documentation of road construction activities. Photo IDs: 07312-01 through -13.<br><br>Moretrench: Condcuted the fusing of approximately 1,000 linear feet of 6" HDPE pipe. Cut and graded road out to staging area around exsisting soil stockpiles<br><br>Materials Brought on Site:<br><br>Geo-tech fabric for road base<br><br>Equipment Brought on Site:<br><br>John Deere 450J Dozer<br><br><b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviuewed prior to start of work activties. |                                                                                                      |                                          |             |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                      |                                          |             |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                      |                                          |             |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                      |                                          |             |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                      |                                          |             |
| Empty space for additional notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                      |                                          |             |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          | REPORT NUMBER<br>823 <span style="float: right;">Page 2 of 2</span> |                 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |       |      |                                      |             |     |      |  |  |       |     |                                   |  |  |      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---------------------------------------------------------------------|-----------------|---------------|----------------------|---------------------|-----------------|-----------|--------------------------|------|------|-----------|----------|------|------|-----------|----------------------|-------|------|--------------------------------------|-------------|-----|------|--|--|-------|-----|-----------------------------------|--|--|------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          | DATE<br>31 Jul 2012 - Tuesday                                       |                 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |       |      |                                      |             |     |      |  |  |       |     |                                   |  |  |      |
| CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                          |                                                                     |                 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |       |      |                                      |             |     |      |  |  |       |     |                                   |  |  |      |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |                                                                     |                 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |       |      |                                      |             |     |      |  |  |       |     |                                   |  |  |      |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left; width: 25%;">Employer</th> <th style="text-align: left; width: 40%;">Labor Classification</th> <th style="text-align: right; width: 15%;">Number of Employees</th> <th style="text-align: right; width: 20%;">Hours Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">2.0</td> <td style="text-align: right;">16.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td colspan="2"></td> <td style="text-align: right; border-top: 1px solid black;">Total</td> <td style="text-align: right; border-top: 1px solid black;">5.0</td> </tr> <tr> <td colspan="2">Total hours worked to date: 126.8</td> <td></td> <td style="text-align: right; border-top: 1px solid black;">40.0</td> </tr> </tbody> </table> |                          |                                                                     |                 | Employer      | Labor Classification | Number of Employees | Hours Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 1.0  | 8.0  | Moretrech | LABORERS | 1.0  | 8.0  | Moretrech | SUPER - CONSTRUCTION | 2.0   | 16.0 | Sovereign                            | SUPER - JOB | 1.0 | 8.0  |  |  | Total | 5.0 | Total hours worked to date: 126.8 |  |  | 40.0 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Labor Classification     | Number of Employees                                                 | Hours Worked    |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |       |      |                                      |             |     |      |  |  |       |     |                                   |  |  |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | HEAVY-EQUIPMENT OPERATOR | 1.0                                                                 | 8.0             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |       |      |                                      |             |     |      |  |  |       |     |                                   |  |  |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | LABORERS                 | 1.0                                                                 | 8.0             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |       |      |                                      |             |     |      |  |  |       |     |                                   |  |  |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | SUPER - CONSTRUCTION     | 2.0                                                                 | 16.0            |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |       |      |                                      |             |     |      |  |  |       |     |                                   |  |  |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | SUPER - JOB              | 1.0                                                                 | 8.0             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |       |      |                                      |             |     |      |  |  |       |     |                                   |  |  |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                          | Total                                                               | 5.0             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |       |      |                                      |             |     |      |  |  |       |     |                                   |  |  |      |
| Total hours worked to date: 126.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                          |                                                                     | 40.0            |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |       |      |                                      |             |     |      |  |  |       |     |                                   |  |  |      |
| <b>EQUIPMENT HOURS</b><br><b>The following equipment hours were Reported today:</b> <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left; width: 25%;">Serial Number</th> <th style="text-align: left; width: 40%;">Description</th> <th style="text-align: right; width: 15%;">Idle Hours</th> <th style="text-align: right; width: 20%;">Operating Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">4.50</td> <td style="text-align: right;">4.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">4.50</td> <td style="text-align: right;">4.00</td> </tr> <tr> <td colspan="2"></td> <td style="text-align: right; border-top: 1px solid black;">Total</td> <td style="text-align: right; border-top: 1px solid black;">9.00</td> </tr> <tr> <td colspan="2">Total operating hours to date: 16.00</td> <td></td> <td style="text-align: right; border-top: 1px solid black;">8.00</td> </tr> </tbody> </table>                                                                                                                                                                                                                                                                                                       |                          |                                                                     |                 | Serial Number | Description          | Idle Hours          | Operating Hours | N/A       | Bull Dozer               | 4.50 | 4.00 | N/A       | Loader   | 4.50 | 4.00 |           |                      | Total | 9.00 | Total operating hours to date: 16.00 |             |     | 8.00 |  |  |       |     |                                   |  |  |      |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Description              | Idle Hours                                                          | Operating Hours |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |       |      |                                      |             |     |      |  |  |       |     |                                   |  |  |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Bull Dozer               | 4.50                                                                | 4.00            |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |       |      |                                      |             |     |      |  |  |       |     |                                   |  |  |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Loader                   | 4.50                                                                | 4.00            |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |       |      |                                      |             |     |      |  |  |       |     |                                   |  |  |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                          | Total                                                               | 9.00            |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |       |      |                                      |             |     |      |  |  |       |     |                                   |  |  |      |
| Total operating hours to date: 16.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          |                                                                     | 8.00            |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |       |      |                                      |             |     |      |  |  |       |     |                                   |  |  |      |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          |                                                                     |                 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |       |      |                                      |             |     |      |  |  |       |     |                                   |  |  |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                          |                                                                     |                 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |       |      |                                      |             |     |      |  |  |       |     |                                   |  |  |      |
| <b>CONTRACTOR CERTIFICATION</b> <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                          |                                                                     |                 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |       |      |                                      |             |     |      |  |  |       |     |                                   |  |  |      |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | DATE                     | SUPERINTENDENT'S INITIALS                                           | DATE            |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |       |      |                                      |             |     |      |  |  |       |     |                                   |  |  |      |



|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |                                                                                                       |             |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  | REPORT NUMBER<br>824                                                                                  | Page 1 of 2 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  | DATE<br>01 Aug 2012 - Wednesday                                                                       |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                              |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  | WEATHER<br>Weather Caused No Delay<br>Temperature Min 67 °F, Max 85 °F; No Precipitation; 10 MPH Wind |             |
| <b>QC NARRATIVES</b><br><br><b>Contractor/Subcontractor &amp; Area of Responsibility for work:</b><br>Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.<br>Moretrench - Conducted site prep. and mobilization<br><br><b>Activities in Progress (List by Activity Number)</b><br>DFW: Mobilization / Site Preparation in progress<br><br><b>Quality Control Inspections and Activities (List by Feature of Work)</b><br>Processed gravel inspected upon arrival. No defecencies noted<br><br><b>Did anything develop that may lead to a Change Order/Claim?</b><br>No developments that may lead to a Change Oder during the day.<br><br><b>Were there any Delays in Work Progress today?</b><br>Due to malfunction of hot plate associated with pipe fuser the remaining HDPE pipe was unable be fused during the day.<br>New hot plate to arrive on 8/3/12 to compelete fusing.<br><br><b>General Comments:</b><br>Work Completed During the Day:<br><br>Sovereign: Provided oversight and on-site QC of Moretrench. Took photo documentation of road construction. Photo IDs: 080112-01 through -11.<br><br>Moretrench: Condcuted the fusing of approximately 450 linear feet of 4" HDPE pipe. Graded and stoned road out to staging area around exsisting soil stockpiles<br><br>Materials Brought on Site:<br><br>127.08 tons of 1 1/2" MassDOT approved Processed Gravel<br><br>Equipment Brought on Site:<br><br>None<br><br><b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviuewed prior to start of work activties. |  |                                                                                                       |             |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |                                                                                                       |             |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |                                                                                                       |             |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                                                       |             |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |                                                                                                       |             |

|                                                                                                                                                                                                                                                                                              |                             |                                                                        |                        |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|------------------------------------------------------------------------|------------------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                          |                             | REPORT NUMBER<br>824 <div style="text-align: right;">Page 2 of 2</div> |                        |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                             |                             | DATE<br>01 Aug 2012 - Wednesday                                        |                        |
| CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                                                                                                                                                                                                                     |                             |                                                                        |                        |
| <b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                              |                             |                                                                        |                        |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)                                                                                                                                                                                                           |                             |                                                                        |                        |
| <b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                              |                             |                                                                        |                        |
| <b>LABOR HOURS</b>                                                                                                                                                                                                                                                                           |                             |                                                                        |                        |
| <b>The following labor hours were Reported today:</b>                                                                                                                                                                                                                                        |                             |                                                                        |                        |
| <u>Employer</u>                                                                                                                                                                                                                                                                              | <u>Labor Classification</u> | <u>Number of Employees</u>                                             | <u>Hours Worked</u>    |
| Moretrech                                                                                                                                                                                                                                                                                    | HEAVY-EQUIPMENT OPERATOR    | 1.0                                                                    | 8.0                    |
| Moretrech                                                                                                                                                                                                                                                                                    | LABORERS                    | 1.0                                                                    | 8.0                    |
| Moretrech                                                                                                                                                                                                                                                                                    | SUPER - CONSTRUCTION        | 2.0                                                                    | 16.0                   |
| Sovereign                                                                                                                                                                                                                                                                                    | SUPER - JOB                 | 2.0                                                                    | 8.0                    |
| Total hours worked to date: 166.8                                                                                                                                                                                                                                                            |                             | Total                                                                  | 6.0                    |
|                                                                                                                                                                                                                                                                                              |                             |                                                                        |                        |
| <b>EQUIPMENT HOURS</b>                                                                                                                                                                                                                                                                       |                             |                                                                        |                        |
| <b>The following equipment hours were Reported today:</b>                                                                                                                                                                                                                                    |                             |                                                                        |                        |
| <u>Serial Number</u>                                                                                                                                                                                                                                                                         | <u>Description</u>          | <u>Idle Hours</u>                                                      | <u>Operating Hours</u> |
| N/A                                                                                                                                                                                                                                                                                          | Bull Dozer                  | 5.50                                                                   | 3.00                   |
| N/A                                                                                                                                                                                                                                                                                          | Loader                      | 3.50                                                                   | 5.00                   |
| Total operating hours to date: 24.00                                                                                                                                                                                                                                                         |                             | Total                                                                  | 9.00                   |
|                                                                                                                                                                                                                                                                                              |                             |                                                                        |                        |
| <b>ACCIDENT REPORTING</b> (Describe accidents)                                                                                                                                                                                                                                               |                             |                                                                        |                        |
| <b>No accidents reported today</b>                                                                                                                                                                                                                                                           |                             |                                                                        |                        |
|                                                                                                                                                                                                                                                                                              |                             |                                                                        |                        |
| <b>CONTRACTOR CERTIFICATION</b>                                                                                                                                                                                                                                                              |                             |                                                                        |                        |
| <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b> |                             |                                                                        |                        |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                | DATE                        | SUPERINTENDENT'S INITIALS                                              | DATE                   |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                 |                                          |             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                 | REPORT NUMBER<br>825                     | Page 1 of 2 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                 | DATE<br>02 Aug 2012 - Thursday           |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                 | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | WEATHER<br>Weather Caused Non-Critical Delay<br>Temperature Min 72 °F, Max 91 °F; No Precipitation; 10 MPH Wind |                                          |             |
| <b>QC NARRATIVES</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                 |                                          |             |
| <b>Contractor/Subcontractor &amp; Area of Responsibility for work:</b><br>Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.<br>Moretrench - Conducted site prep. and mobilization                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                 |                                          |             |
| <b>Activities in Progress (List by Activity Number)</b><br>DFW: Mobilization / Site Preparation in progress                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                 |                                          |             |
| <b>Quality Control Inspections and Activities (List by Feature of Work)</b><br>Processed gravel inspected upon arrival. No defecencies noted.<br><br>All three Alder tanks inspected upon arrival. All clean and no defecencies noted.                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                 |                                          |             |
| <b>Did anything develop that may lead to a Change Order/Claim?</b><br>No developments that may lead to a Change Oder during the day.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                 |                                          |             |
| <b>Were there any Delays in Work Progress today?</b><br>Half an hour delay in work during the day due to observed lighting strikes in the area.<br>After a half an hour lighting ceased. No precipitation observed on site.                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                 |                                          |             |
| <b>General Comments:</b><br>Work Completed During the Day:<br><br>Sovereign: Provided oversight and on-site QC of Moretrench. Took photo documentation of construction of laydown area. Photo IDs: 080212-01 through -06.<br><br>Moretrench: Finished construction of haul road and laydown area. Improved access road. Began shaking out of fittings for slurry piping.<br><br>Materials Brought on Site:<br><br>130.28 tons of 1 1/2" MassDOT approved Processed Gravel<br><br>900 (50 lbs) bags of Hydrogel Wyoming Bentonite. Certified NSF / ANSI 60<br><br>Equipment Brought on Site:<br><br>Three (3) Alder Tanks<br><br>Moretrech Job Trailer and Tool Trailer. |                                                                                                                 |                                          |             |
| <b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviuewed prior to start of work activties.                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                 |                                          |             |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                 |                                          |             |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                 |                                          |             |
| Empty space for additional notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                 |                                          |             |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                          | REPORT NUMBER<br>825                     |                           | Page 2 of 2 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |             |     |     |       |  |     |      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|------------------------------------------|---------------------------|-------------|---------------|----------------------|---------------------|-----------------|-----------|--------------------------|------|------|-----------|----------|------|------|-----------|------------------|------|------|-----------|----------------------|-----|------|-----------|-------------|-----|-----|-------|--|-----|------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                          | DATE<br>02 Aug 2012 - Thursday           |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |             |     |     |       |  |     |      |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                          | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |             |     |     |       |  |     |      |
| <b>QC REQUIREMENTS</b><br>No QC requirements were completed today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |             |     |     |       |  |     |      |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br>No QC Deficiency items were issued today<br>No Deficiency items were corrected today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |             |     |     |       |  |     |      |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br>No contractors had their first or last day on site today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |             |     |     |       |  |     |      |
| <b>LABOR HOURS</b><br>The following labor hours were Reported today: <table border="1"> <thead> <tr> <th>Employer</th> <th>Labor Classification</th> <th>Number of Employees</th> <th>Hours Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td>2.0</td> <td>16.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td colspan="2">Total</td> <td>6.0</td> <td>48.0</td> </tr> </tbody> </table> Total hours worked to date: 214.8 |                          |                                          |                           |             | Employer      | Labor Classification | Number of Employees | Hours Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 1.0  | 8.0  | Moretrech | LABORERS | 1.0  | 8.0  | Moretrech | PROJECT ENGINEER | 1.0  | 8.0  | Moretrech | SUPER - CONSTRUCTION | 2.0 | 16.0 | Sovereign | SUPER - JOB | 1.0 | 8.0 | Total |  | 6.0 | 48.0 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Labor Classification     | Number of Employees                      | Hours Worked              |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |             |     |     |       |  |     |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | HEAVY-EQUIPMENT OPERATOR | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |             |     |     |       |  |     |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | LABORERS                 | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |             |     |     |       |  |     |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | PROJECT ENGINEER         | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |             |     |     |       |  |     |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | SUPER - CONSTRUCTION     | 2.0                                      | 16.0                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |             |     |     |       |  |     |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | SUPER - JOB              | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |             |     |     |       |  |     |      |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          | 6.0                                      | 48.0                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |             |     |     |       |  |     |      |
| <b>EQUIPMENT HOURS</b><br>The following equipment hours were Reported today: <table border="1"> <thead> <tr> <th>Serial Number</th> <th>Description</th> <th>Idle Hours</th> <th>Operating Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td>5.50</td> <td>3.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td>3.50</td> <td>5.00</td> </tr> <tr> <td colspan="2">Total</td> <td>9.00</td> <td>8.00</td> </tr> </tbody> </table> Total operating hours to date: 32.00                                                                                                                                                                                                                                                                             |                          |                                          |                           |             | Serial Number | Description          | Idle Hours          | Operating Hours | N/A       | Bull Dozer               | 5.50 | 3.00 | N/A       | Loader   | 3.50 | 5.00 | Total     |                  | 9.00 | 8.00 |           |                      |     |      |           |             |     |     |       |  |     |      |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Description              | Idle Hours                               | Operating Hours           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |             |     |     |       |  |     |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Bull Dozer               | 5.50                                     | 3.00                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |             |     |     |       |  |     |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Loader                   | 3.50                                     | 5.00                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |             |     |     |       |  |     |      |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          | 9.00                                     | 8.00                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |             |     |     |       |  |     |      |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br>No accidents reported today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |             |     |     |       |  |     |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |             |     |     |       |  |     |      |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |             |     |     |       |  |     |      |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                          | DATE                                     | SUPERINTENDENT'S INITIALS |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |             |     |     |       |  |     |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |             |     |     |       |  |     |      |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                       |                                          |             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                       | REPORT NUMBER<br>826                     | Page 1 of 2 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                       | DATE<br>03 Aug 2012 - Friday             |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                       | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | WEATHER<br>Weather Caused No Delay<br>Temperature Min 72 °F, Max 91 °F; No Precipitation; 10 MPH Wind |                                          |             |
| <b>QC NARRATIVES</b><br><br><b>Contractor/Subcontractor &amp; Area of Responsibility for work:</b><br>Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.<br>Moretrench - Conducted site prep. and mobilization<br><br><b>Activities in Progress (List by Activity Number)</b><br>DFW: Mobilization / Site Preparation in progress<br><br><b>Quality Control Inspections and Activities (List by Feature of Work)</b><br>Silt fence installation was inspected during and after completion. No deficiencies noted.<br>Hay bales to be installed the following work day.<br><br><b>Did anything develop that may lead to a Change Order/Claim?</b><br>No developments that may lead to a Change Oder during the day.<br><br><b>Were there any Delays in Work Progress today?</b><br>No delays in work progress encountered during the day.<br><br><b>General Comments:</b><br>Work Completed During the Day:<br><br>Sovereign: Provided oversight and on-site QC of Moretrench. Took photo documentation of silt fence installation activities. Photo IDs: 080312-01 through -06.<br><br>Moretrench: Mobilized and began setting up slurry plant, generator, fuel cell, and miscellaneous fittings and hoses. Wired generator and job trailers. Gatsby Grounds, sub to Moretrench, installed approximately 500 linear feet of silt fencing east of the barrier wall alignment along the exsisting chain link fence. Silt fence extended from approximately barrier wall station 2+50 to 7+00.<br><br>Materials Brought on Site:<br><br>500 feet of silt fence<br><br>Equipment Brought on Site:<br><br>Sovereign job trailer<br>Slurry plant<br>Generator<br>Fuel cell<br>Miscellaneous fittings, hoses, and pumps.<br>Crane Mats<br><br><b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviuewed prior to start of work activities. |                                                                                                       |                                          |             |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                       |                                          |             |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                       |                                          |             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                       |                                          |             |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                          | REPORT NUMBER<br>826 <span style="float: right;">Page 2 of 2</span> |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                    |             |      |           |                  |     |     |           |                      |     |     |           |             |     |     |                                   |  |           |      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---------------------------------------------------------------------|--------------------|---------------|----------------------|------------------------|--------------------|-----------|--------------------------|------|------|-----------|----------|------|------|--------------------------------------|--------------------|-------------|------|-----------|------------------|-----|-----|-----------|----------------------|-----|-----|-----------|-------------|-----|-----|-----------------------------------|--|-----------|------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          | DATE<br>03 Aug 2012 - Friday                                        |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                    |             |      |           |                  |     |     |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                    |             |      |           |                  |     |     |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| <b>QC REQUIREMENTS</b><br>No QC requirements were completed today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                    |             |      |           |                  |     |     |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br>No QC Deficiency items were issued today<br>No Deficiency items were corrected today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                    |             |      |           |                  |     |     |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br>No contractors had their first or last day on site today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                    |             |      |           |                  |     |     |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| <b>LABOR HOURS</b><br>The following labor hours were Reported today: <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>LANDSCAPE LABORERS</td> <td style="text-align: right;">2.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total hours worked to date: 264.8</td> <td style="text-align: right; border-top: 1px solid black;">Total 7.0</td> <td style="text-align: right; border-top: 1px solid black;">50.0</td> </tr> </tbody> </table> |                          |                                                                     |                    | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 1.0  | 8.0  | Moretrech | LABORERS | 1.0  | 8.0  | Moretrech                            | LANDSCAPE LABORERS | 2.0         | 10.0 | Moretrech | PROJECT ENGINEER | 1.0 | 8.0 | Moretrech | SUPER - CONSTRUCTION | 1.0 | 8.0 | Sovereign | SUPER - JOB | 1.0 | 8.0 | Total hours worked to date: 264.8 |  | Total 7.0 | 50.0 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Labor Classification     | Number of<br>Employees                                              | Hours<br>Worked    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                    |             |      |           |                  |     |     |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | HEAVY-EQUIPMENT OPERATOR | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                    |             |      |           |                  |     |     |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | LABORERS                 | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                    |             |      |           |                  |     |     |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | LANDSCAPE LABORERS       | 2.0                                                                 | 10.0               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                    |             |      |           |                  |     |     |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | PROJECT ENGINEER         | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                    |             |      |           |                  |     |     |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | SUPER - CONSTRUCTION     | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                    |             |      |           |                  |     |     |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | SUPER - JOB              | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                    |             |      |           |                  |     |     |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| Total hours worked to date: 264.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          | Total 7.0                                                           | 50.0               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                    |             |      |           |                  |     |     |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| <b>EQUIPMENT HOURS</b><br>The following equipment hours were Reported today: <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle<br/>Hours</th> <th style="text-align: right;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">1.50</td> <td style="text-align: right;">7.00</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total operating hours to date: 39.00</td> <td style="text-align: right; border-top: 1px solid black;">Total 10.00</td> <td style="text-align: right; border-top: 1px solid black;">7.00</td> </tr> </tbody> </table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |                                                                     |                    | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A       | Bull Dozer               | 8.50 | 0.00 | N/A       | Loader   | 1.50 | 7.00 | Total operating hours to date: 39.00 |                    | Total 10.00 | 7.00 |           |                  |     |     |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Description              | Idle<br>Hours                                                       | Operating<br>Hours |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                    |             |      |           |                  |     |     |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Bull Dozer               | 8.50                                                                | 0.00               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                    |             |      |           |                  |     |     |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Loader                   | 1.50                                                                | 7.00               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                    |             |      |           |                  |     |     |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| Total operating hours to date: 39.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                          | Total 10.00                                                         | 7.00               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                    |             |      |           |                  |     |     |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br>No accidents reported today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                    |             |      |           |                  |     |     |           |                      |     |     |           |             |     |     |                                   |  |           |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                    |             |      |           |                  |     |     |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                    |             |      |           |                  |     |     |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | DATE                     | SUPERINTENDENT'S INITIALS                                           | DATE               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                    |             |      |           |                  |     |     |           |                      |     |     |           |             |     |     |                                   |  |           |      |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                       |                                          |             |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                       | REPORT NUMBER<br>829                     | Page 1 of 2 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                       | DATE<br>06 Aug 2012 - Monday             |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                       | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | WEATHER<br>Weather Caused No Delay<br>Temperature Min 65 °F, Max 85 °F; No Precipitation; 10 MPH Wind |                                          |             |
| <b>QC NARRATIVES</b><br><br><b>Contractor/Subcontractor &amp; Area of Responsibility for work:</b><br>Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.<br>Moretrench - Conducted site prep. and mobilization<br><br><b>Activities in Progress (List by Activity Number)</b><br>DFW: Mobilization / Site Preparation in progress<br><br><b>Quality Control Inspections and Activities (List by Feature of Work)</b><br>Hay bales to be inspected upon delivery. No deficiencies noted. All materials accepted.<br>Bentonite 50 pound bags and bulk bags inspected upon delivery. No deficiencies noted. All materials accepted.<br><br><b>Did anything develop that may lead to a Change Order/Claim?</b><br>No developments that may lead to a Change Oder during the day.<br><br><b>Were there any Delays in Work Progress today?</b><br>No delays in work progress encountered during the day.<br><br><b>General Comments:</b><br>Work Completed During the Day:<br><br>Sovereign: Provided oversight and on-site QC of Moretrench. Cleaned out storage container used during pre-construction sub-surface investigation for removal from site.<br><br>Moretrench: Began setting up slurry plant pumps. Continued to fuse HDPE pipe and began to run pipe out from the slurry plant to the hydrant at site entrance on Cook St. Gatsby Grounds, sub to Moretrench, installed 128 bails of hay along the silt fencing east of the barrier wall alignment. Began double staking each hay bail. Errosion control activities to be completed the following day.<br><br>Materials Brought on Site:<br><br>128 Hay Bails<br><br>900 (50 lb) bags of Hydogel Wyoming Bentonite<br>17 Bulk Bags of Hydogel Wyoming Bentonite<br><br>Equipment Brought on Site:<br><br>T750 Bob Cat<br><br><b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviued prior to start of work activties. |                                                                                                       |                                          |             |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                       |                                          |             |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                       |                                          |             |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                       |                                          |             |
| Empty space for additional notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                       |                                          |             |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          | REPORT NUMBER<br>829 <span style="float: right;">Page 2 of 2</span> |                    |               |                      |                        |                    |           |                          |       |      |           |          |      |      |           |                    |      |      |           |                  |       |       |           |                      |     |      |           |             |     |      |       |  |     |      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---------------------------------------------------------------------|--------------------|---------------|----------------------|------------------------|--------------------|-----------|--------------------------|-------|------|-----------|----------|------|------|-----------|--------------------|------|------|-----------|------------------|-------|-------|-----------|----------------------|-----|------|-----------|-------------|-----|------|-------|--|-----|------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                          | DATE<br>06 Aug 2012 - Monday                                        |                    |               |                      |                        |                    |           |                          |       |      |           |          |      |      |           |                    |      |      |           |                  |       |       |           |                      |     |      |           |             |     |      |       |  |     |      |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><br><b>No QC Deficiency items were issued today</b><br><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |          |      |      |           |                    |      |      |           |                  |       |       |           |                      |     |      |           |             |     |      |       |  |     |      |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                          |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |          |      |      |           |                    |      |      |           |                  |       |       |           |                      |     |      |           |             |     |      |       |  |     |      |
| <b>LABOR HOURS</b><br><br><b>The following labor hours were Reported today:</b> <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td>Moretrech</td> <td>LANDSCAPE LABORERS</td> <td style="text-align: right;">2.0</td> <td style="text-align: right;">9.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td colspan="2" style="text-align: right;">Total</td> <td style="text-align: right;">7.0</td> <td style="text-align: right;">59.0</td> </tr> </tbody> </table> <div style="margin-top: 5px;">             Total hours worked to date: 323.8           </div> |                          |                                                                     |                    | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 1.0   | 10.0 | Moretrech | LABORERS | 1.0  | 10.0 | Moretrech | LANDSCAPE LABORERS | 2.0  | 9.0  | Moretrech | PROJECT ENGINEER | 1.0   | 10.0  | Moretrech | SUPER - CONSTRUCTION | 1.0 | 10.0 | Sovereign | SUPER - JOB | 1.0 | 10.0 | Total |  | 7.0 | 59.0 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Labor Classification     | Number of<br>Employees                                              | Hours<br>Worked    |               |                      |                        |                    |           |                          |       |      |           |          |      |      |           |                    |      |      |           |                  |       |       |           |                      |     |      |           |             |     |      |       |  |     |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | HEAVY-EQUIPMENT OPERATOR | 1.0                                                                 | 10.0               |               |                      |                        |                    |           |                          |       |      |           |          |      |      |           |                    |      |      |           |                  |       |       |           |                      |     |      |           |             |     |      |       |  |     |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | LABORERS                 | 1.0                                                                 | 10.0               |               |                      |                        |                    |           |                          |       |      |           |          |      |      |           |                    |      |      |           |                  |       |       |           |                      |     |      |           |             |     |      |       |  |     |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | LANDSCAPE LABORERS       | 2.0                                                                 | 9.0                |               |                      |                        |                    |           |                          |       |      |           |          |      |      |           |                    |      |      |           |                  |       |       |           |                      |     |      |           |             |     |      |       |  |     |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | PROJECT ENGINEER         | 1.0                                                                 | 10.0               |               |                      |                        |                    |           |                          |       |      |           |          |      |      |           |                    |      |      |           |                  |       |       |           |                      |     |      |           |             |     |      |       |  |     |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | SUPER - CONSTRUCTION     | 1.0                                                                 | 10.0               |               |                      |                        |                    |           |                          |       |      |           |          |      |      |           |                    |      |      |           |                  |       |       |           |                      |     |      |           |             |     |      |       |  |     |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | SUPER - JOB              | 1.0                                                                 | 10.0               |               |                      |                        |                    |           |                          |       |      |           |          |      |      |           |                    |      |      |           |                  |       |       |           |                      |     |      |           |             |     |      |       |  |     |      |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                          | 7.0                                                                 | 59.0               |               |                      |                        |                    |           |                          |       |      |           |          |      |      |           |                    |      |      |           |                  |       |       |           |                      |     |      |           |             |     |      |       |  |     |      |
| <b>EQUIPMENT HOURS</b><br><br><b>The following equipment hours were Reported today:</b> <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle<br/>Hours</th> <th style="text-align: right;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">10.00</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">9.00</td> </tr> <tr> <td>N/A</td> <td>Tracked Bobcat</td> <td style="text-align: right;">2.00</td> <td style="text-align: right;">2.50</td> </tr> <tr> <td colspan="2" style="text-align: right;">Total</td> <td style="text-align: right;">13.00</td> <td style="text-align: right;">11.50</td> </tr> </tbody> </table> <div style="margin-top: 5px;">             Total operating hours to date: 50.50           </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |                                                                     |                    | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A       | Bull Dozer               | 10.00 | 0.00 | N/A       | Loader   | 1.00 | 9.00 | N/A       | Tracked Bobcat     | 2.00 | 2.50 | Total     |                  | 13.00 | 11.50 |           |                      |     |      |           |             |     |      |       |  |     |      |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Description              | Idle<br>Hours                                                       | Operating<br>Hours |               |                      |                        |                    |           |                          |       |      |           |          |      |      |           |                    |      |      |           |                  |       |       |           |                      |     |      |           |             |     |      |       |  |     |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Bull Dozer               | 10.00                                                               | 0.00               |               |                      |                        |                    |           |                          |       |      |           |          |      |      |           |                    |      |      |           |                  |       |       |           |                      |     |      |           |             |     |      |       |  |     |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Loader                   | 1.00                                                                | 9.00               |               |                      |                        |                    |           |                          |       |      |           |          |      |      |           |                    |      |      |           |                  |       |       |           |                      |     |      |           |             |     |      |       |  |     |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Tracked Bobcat           | 2.00                                                                | 2.50               |               |                      |                        |                    |           |                          |       |      |           |          |      |      |           |                    |      |      |           |                  |       |       |           |                      |     |      |           |             |     |      |       |  |     |      |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                          | 13.00                                                               | 11.50              |               |                      |                        |                    |           |                          |       |      |           |          |      |      |           |                    |      |      |           |                  |       |       |           |                      |     |      |           |             |     |      |       |  |     |      |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |          |      |      |           |                    |      |      |           |                  |       |       |           |                      |     |      |           |             |     |      |       |  |     |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                          |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |          |      |      |           |                    |      |      |           |                  |       |       |           |                      |     |      |           |             |     |      |       |  |     |      |
| <b>CONTRACTOR CERTIFICATION</b> <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |          |      |      |           |                    |      |      |           |                  |       |       |           |                      |     |      |           |             |     |      |       |  |     |      |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | DATE                     | SUPERINTENDENT'S INITIALS                                           | DATE               |               |                      |                        |                    |           |                          |       |      |           |          |      |      |           |                    |      |      |           |                  |       |       |           |                      |     |      |           |             |     |      |       |  |     |      |



|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                       |                                          |             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                       | REPORT NUMBER<br>830                     | Page 1 of 2 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                       | DATE<br>07 Aug 2012 - Tuesday            |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                       | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | WEATHER<br>Weather Caused No Delay<br>Temperature Min 63 °F, Max 87 °F; No Precipitation; 10 MPH Wind |                                          |             |
| <b>QC NARRATIVES</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                       |                                          |             |
| <b>Contractor/Subcontractor &amp; Area of Responsibility for work:</b><br>Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.<br>Moretrench - Conducted site prep. and mobilization                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                       |                                          |             |
| <b>Activities in Progress (List by Activity Number)</b><br>DFW: Mobilization / Site Preparation in progress                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                       |                                          |             |
| <b>Quality Control Inspections and Activities (List by Feature of Work)</b><br>Bentonite 50 pound bags and bulk bags inspected upon delivery. No deficiencies noted. All materials accepted.<br><br>Errrosion control installation (silt fence and hail bails) inspected during initial inspection. No deficiencies noted                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                       |                                          |             |
| <b>Did anything develop that may lead to a Change Order/Claim?</b><br>No developments that may lead to a Change Oder during the day.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                       |                                          |             |
| <b>Were there any Delays in Work Progress today?</b><br>No delays in work progress encountered during the day.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                       |                                          |             |
| <b>General Comments:</b><br>Work Completed During the Day:<br><br>Sovereign: Provided oversight and on-site QC of Moretrench. Conducted photograph documentation Photograph IDs: 080712-01 through 080712-14<br><br>Moretrench: Continued setting up pumps and piping for slurry plant and tanks. Continued to guse pipe and completed stretching to hydrant at site entrance on Cook St. Tested piping and flushed out water line. Began wiring slurry submersible pumps.<br><br>Materials Brought on Site:<br><br>1800 (50 lb) bags of Hydogel Wyoming Bentonite<br>17 Bulk Bags of Hydogel Wyoming Bentonite<br><br>Equipment Brought on Site:<br><br>Recieved backflow preventer and hydrant meter from Devens DPW (United Water) |                                                                                                       |                                          |             |
| <b>Verbal Instructions given by Government:</b><br>Randy LeCuyer (USACE construction rep) requested Sovereign and Moretrench install secondary containment around fuel cell, generator, and main slurry plant pump consisting of plactic sheeting and berm.                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                       |                                          |             |
| <b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviuewed prior to start of work activties.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                       |                                          |             |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><br><b>No preparatory inspections were held today</b><br><br><b>An initial inspection was held today for the following feature:</b><br>Mobilization / Site Prep.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                       |                                          |             |
| Empty space for additional notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                       |                                          |             |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                          | REPORT NUMBER<br>830 <span style="float: right;">Page 2 of 2</span> |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |     |           |             |     |     |                                   |  |           |      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---------------------------------------------------------------------|--------------------|---------------|----------------------|------------------------|--------------------|-----------|--------------------------|------|------|-----------|----------|------|------|--------------------------------------|------------------|-------------|------|-----------|----------------------|-----|-----|-----------|-------------|-----|-----|-----------------------------------|--|-----------|------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                          | DATE<br>07 Aug 2012 - Tuesday                                       |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| <b>ACTIVITY START/FINISH</b><br>No activities were started or finished today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                          | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                            |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| <b>QC REQUIREMENTS</b><br>No QC requirements were completed today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br>No QC Deficiency items were issued today<br>No Deficiency items were corrected today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br>No contractors had their first or last day on site today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| <b>LABOR HOURS</b><br>The following labor hours were Reported today: <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total hours worked to date: 363.8</td> <td style="text-align: right; border-top: 1px solid black;">Total 5.0</td> <td style="text-align: right; border-top: 1px solid black;">40.0</td> </tr> </tbody> </table> |                          |                                                                     |                    | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 1.0  | 8.0  | Moretrech | LABORERS | 1.0  | 8.0  | Moretrech                            | PROJECT ENGINEER | 1.0         | 8.0  | Moretrech | SUPER - CONSTRUCTION | 1.0 | 8.0 | Sovereign | SUPER - JOB | 1.0 | 8.0 | Total hours worked to date: 363.8 |  | Total 5.0 | 40.0 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Labor Classification     | Number of<br>Employees                                              | Hours<br>Worked    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | HEAVY-EQUIPMENT OPERATOR | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | LABORERS                 | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | PROJECT ENGINEER         | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | SUPER - CONSTRUCTION     | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | SUPER - JOB              | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| Total hours worked to date: 363.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          | Total 5.0                                                           | 40.0               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| <b>EQUIPMENT HOURS</b><br>The following equipment hours were Reported today: <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle<br/>Hours</th> <th style="text-align: right;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">2.00</td> <td style="text-align: right;">6.50</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total operating hours to date: 57.00</td> <td style="text-align: right; border-top: 1px solid black;">Total 10.50</td> <td style="text-align: right; border-top: 1px solid black;">6.50</td> </tr> </tbody> </table>                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          |                                                                     |                    | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A       | Bull Dozer               | 8.50 | 0.00 | N/A       | Loader   | 2.00 | 6.50 | Total operating hours to date: 57.00 |                  | Total 10.50 | 6.50 |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Description              | Idle<br>Hours                                                       | Operating<br>Hours |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Bull Dozer               | 8.50                                                                | 0.00               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Loader                   | 2.00                                                                | 6.50               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| Total operating hours to date: 57.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          | Total 10.50                                                         | 6.50               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br>No accidents reported today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |     |           |             |     |     |                                   |  |           |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |     |           |             |     |     |                                   |  |           |      |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | DATE                     | SUPERINTENDENT'S INITIALS                                           | DATE               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |     |           |             |     |     |                                   |  |           |      |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                      |                                          |             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                      | REPORT NUMBER<br>831                     | Page 1 of 2 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                      | DATE<br>08 Aug 2012 - Wednesday          |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                      | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | WEATHER<br>Weather Caused No Delay<br>Temperature Min 70 °F, Max 94 °F; No Precipitation; 5 MPH Wind |                                          |             |
| <b>QC NARRATIVES</b><br><br><b>Contractor/Subcontractor &amp; Area of Responsibility for work:</b><br>Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.<br>Moretrench - Conducted site prep. and mobilization. Began construction of working platform.<br><br><b>Activities in Progress (List by Activity Number)</b><br>DFW: Mobilization / Site Preparation in progress<br>DFW: Construction of Working Platform<br><br><b>Quality Control Inspections and Activities (List by Feature of Work)</b><br>No major QC inspections conducted during the day.<br><br><b>Did anything develop that may lead to a Change Order/Claim?</b><br>No developments that may lead to a Change Oder during the day.<br><br><b>Were there any Delays in Work Progress today?</b><br>No delays in work progress encountered during the day.<br><br><b>General Comments:</b><br>Work Completed During the Day:<br><br>Sovereign: Provided oversight and on-site QC of Moretrench. Conducted photograph documentation Photograph IDs: 080812-01 through 080812-10. Took all boring cores from previous SHL sub-surface investigates and added them to spoils pile.<br><br>Moretrench: Continued to fuse pip and setup piping for slurry plant and tanks. Continued wiring slurry submersible pumps. Setup secondary containment areas around fuel cell, genterator and main slurry plant pump. Began grubbing and grading first 300 feet of the working platform<br><br>Materials Brought on Site:<br><br>No additional materials brought on site during the day.<br><br>Equipment Brought on Site:<br><br>30 CY Dumpster (Waste Management)<br><br><b>Verbal Instructions given by Government:</b><br>No verbal instructions given by the government during the day.<br><br><b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviued prior to start of work activties. |                                                                                                      |                                          |             |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                      |                                          |             |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                      |                                          |             |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                      |                                          |             |
| Empty space for additional notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                      |                                          |             |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           | REPORT NUMBER<br>831                     |                           | Page 2 of 2 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|------------------------------------------|---------------------------|-------------|---------------|----------------------|---------------------|-----------------|-----------|--------------------------|------|------|-----------|----------|------|------|-----------|------------------|------|------|-----------|----------------------|-----|------|-----------|---------------------------|-----|-----|-----------|-------------|-----|-----|-------|--|-----|------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           | DATE<br>08 Aug 2012 - Wednesday          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br>No QC Deficiency items were issued today<br>No Deficiency items were corrected today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br>No contractors had their first or last day on site today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| <b>LABOR HOURS</b><br>The following labor hours were Reported today: <table border="1"> <thead> <tr> <th>Employer</th> <th>Labor Classification</th> <th>Number of Employees</th> <th>Hours Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td>2.0</td> <td>16.0</td> </tr> <tr> <td>Sovereign</td> <td>SAFETY ENGINEER - ON SITE</td> <td>1.0</td> <td>5.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td colspan="2">Total</td> <td>7.0</td> <td>53.0</td> </tr> </tbody> </table> Total hours worked to date: 416.8 |                           |                                          |                           |             | Employer      | Labor Classification | Number of Employees | Hours Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 1.0  | 8.0  | Moretrech | LABORERS | 1.0  | 8.0  | Moretrech | PROJECT ENGINEER | 1.0  | 8.0  | Moretrech | SUPER - CONSTRUCTION | 2.0 | 16.0 | Sovereign | SAFETY ENGINEER - ON SITE | 1.0 | 5.0 | Sovereign | SUPER - JOB | 1.0 | 8.0 | Total |  | 7.0 | 53.0 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Labor Classification      | Number of Employees                      | Hours Worked              |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | HEAVY-EQUIPMENT OPERATOR  | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | LABORERS                  | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | PROJECT ENGINEER          | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | SUPER - CONSTRUCTION      | 2.0                                      | 16.0                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | SAFETY ENGINEER - ON SITE | 1.0                                      | 5.0                       |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | SUPER - JOB               | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           | 7.0                                      | 53.0                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| <b>EQUIPMENT HOURS</b><br>The following equipment hours were Reported today: <table border="1"> <thead> <tr> <th>Serial Number</th> <th>Description</th> <th>Idle Hours</th> <th>Operating Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td>4.50</td> <td>4.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td>4.50</td> <td>4.00</td> </tr> <tr> <td colspan="2">Total</td> <td>9.00</td> <td>8.00</td> </tr> </tbody> </table> Total operating hours to date: 65.00                                                                                                                                                                                                                                                                                                                                                                        |                           |                                          |                           |             | Serial Number | Description          | Idle Hours          | Operating Hours | N/A       | Bull Dozer               | 4.50 | 4.00 | N/A       | Loader   | 4.50 | 4.00 | Total     |                  | 9.00 | 8.00 |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Description               | Idle Hours                               | Operating Hours           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Bull Dozer                | 4.50                                     | 4.00                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Loader                    | 4.50                                     | 4.00                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           | 9.00                                     | 8.00                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br>No accidents reported today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| <div style="height: 300px;"></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                           | DATE                                     | SUPERINTENDENT'S INITIALS |             | DATE          |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                      |             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  | REPORT NUMBER<br>832                                                                                 | Page 1 of 2 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  | DATE<br>09 Aug 2012 - Thursday                                                                       |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                             |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  | WEATHER<br>Weather Caused No Delay<br>Temperature Min 70 °F, Max 95 °F; No Precipitation; 5 MPH Wind |             |
| <b>QC NARRATIVES</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |                                                                                                      |             |
| <b>Contractor/Subcontractor &amp; Area of Responsibility for work:</b><br>Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.<br>Moretrench - Conducted site prep. and mobilization. Continued construction of working platform.                                                                                                                                                                                                                                                                          |  |                                                                                                      |             |
| <b>Activities in Progress (List by Activity Number)</b><br>DFW: Mobilization / Site Preparation in progress<br>DFW: Construction of Working Platform                                                                                                                                                                                                                                                                                                                                                                                       |  |                                                                                                      |             |
| <b>Quality Control Inspections and Activities (List by Feature of Work)</b><br>Sovereign conducted Preparatory Phase meeting for DFW soil-bentonite wall construction.                                                                                                                                                                                                                                                                                                                                                                     |  |                                                                                                      |             |
| <b>Did anything develop that may lead to a Change Order/Claim?</b><br>No developments that may lead to a Change Oder during the day.                                                                                                                                                                                                                                                                                                                                                                                                       |  |                                                                                                      |             |
| <b>Were there any Delays in Work Progress today?</b><br>No delays in work progress encountered during the day.                                                                                                                                                                                                                                                                                                                                                                                                                             |  |                                                                                                      |             |
| <b>General Comments:</b><br>Work Completed During the Day:<br><br>Sovereign: Provided oversight and on-site QC of Moretrench.<br><br>Moretrench: Continued to fuse pip and setup piping for slurry plant and tanks. Completed wiring slurry submersible pumps. Continued grubbing and grading first 300 feet of the working platform<br><br>Materials Brought on Site:<br><br>No additional materials brought on site during the day.<br><br>Equipment Brought on Site:<br><br>No additional equipment was brought on site during the day. |  |                                                                                                      |             |
| <b>Verbal Instructions given by Government:</b><br>During preparatory phase meeting Randy LeCuyer (USACE) requested that Sovereign/Moretrench try to locate water shutoff valve prior to hydrant on Cook St. being used for water supply in case of emergency.                                                                                                                                                                                                                                                                             |  |                                                                                                      |             |
| <b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviued prior to start of work activties.                                                                                                                                                                                                                                                                                                                                               |  |                                                                                                      |             |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><br><b>A preparatory inspection was held today for the following feature:</b><br>Soil-Bentonite Wall Construct.                                                                                                                                                                                                                                                                                                                                       |  |                                                                                                      |             |
| <b>No initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |                                                                                                      |             |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |                                                                                                      |             |
| Empty space for additional notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                                                                                                      |             |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                           | REPORT NUMBER<br>832                     |                           | Page 2 of 2 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|------------------------------------------|---------------------------|-------------|---------------|----------------------|---------------------|-----------------|-----------|--------------------------|------|------|-----------|----------|------|------|-----------|------------------|------|------|-----------|----------------------|-----|------|-----------|---------------------------|-----|-----|-----------|-------------|-----|-----|-------|--|-----|------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           | DATE<br>09 Aug 2012 - Thursday           |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table border="1"> <thead> <tr> <th>Employer</th> <th>Labor Classification</th> <th>Number of Employees</th> <th>Hours Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td>2.0</td> <td>16.0</td> </tr> <tr> <td>Sovereign</td> <td>SAFETY ENGINEER - ON SITE</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td colspan="2">Total</td> <td>7.0</td> <td>56.0</td> </tr> </tbody> </table><br>Total hours worked to date: 472.8 |                           |                                          |                           |             | Employer      | Labor Classification | Number of Employees | Hours Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 1.0  | 8.0  | Moretrech | LABORERS | 1.0  | 8.0  | Moretrech | PROJECT ENGINEER | 1.0  | 8.0  | Moretrech | SUPER - CONSTRUCTION | 2.0 | 16.0 | Sovereign | SAFETY ENGINEER - ON SITE | 1.0 | 8.0 | Sovereign | SUPER - JOB | 1.0 | 8.0 | Total |  | 7.0 | 56.0 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Labor Classification      | Number of Employees                      | Hours Worked              |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | HEAVY-EQUIPMENT OPERATOR  | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | LABORERS                  | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | PROJECT ENGINEER          | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | SUPER - CONSTRUCTION      | 2.0                                      | 16.0                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | SAFETY ENGINEER - ON SITE | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | SUPER - JOB               | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           | 7.0                                      | 56.0                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| <b>EQUIPMENT HOURS</b><br><b>The following equipment hours were Reported today:</b> <table border="1"> <thead> <tr> <th>Serial Number</th> <th>Description</th> <th>Idle Hours</th> <th>Operating Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td>6.50</td> <td>2.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td>2.50</td> <td>6.00</td> </tr> <tr> <td colspan="2">Total</td> <td>9.00</td> <td>8.00</td> </tr> </tbody> </table><br>Total operating hours to date: 73.00                                                                                                                                                                                                                                                                                                                                                                        |                           |                                          |                           |             | Serial Number | Description          | Idle Hours          | Operating Hours | N/A       | Bull Dozer               | 6.50 | 2.00 | N/A       | Loader   | 2.50 | 6.00 | Total     |                  | 9.00 | 8.00 |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Description               | Idle Hours                               | Operating Hours           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Bull Dozer                | 6.50                                     | 2.00                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Loader                    | 2.50                                     | 6.00                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           | 9.00                                     | 8.00                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| <b>CONTRACTOR CERTIFICATION</b> <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           | DATE                                     | SUPERINTENDENT'S INITIALS |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |      |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                            |                                          |             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                            | REPORT NUMBER<br>833                     | Page 1 of 2 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                            | DATE<br>10 Aug 2012 - Friday             |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                            | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | WEATHER<br>Weather Caused No Delay<br>Temperature Min 70 °F, Max 95 °F; 0.01 IN Precipitation; 15 MPH Wind |                                          |             |
| <b>QC NARRATIVES</b><br><br><b>Contractor/Subcontractor &amp; Area of Responsibility for work:</b><br>Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.<br>Moretrench - Conducted site prep. and mobilization. Continued construction of working platform.<br><br><b>Activities in Progress (List by Activity Number)</b><br>DFW: Mobilization / Site Preparation in progress<br>DFW: Construction of Working Platform<br><br><b>Quality Control Inspections and Activities (List by Feature of Work)</b><br>Sovereign conducted inspection of imported backfill borrow upon deliveries. No deficiencies noted. QC samples of the imported backfill borrow will collected by sent to office laboratory for required geo-technical analytical.<br><br><b>Did anything develop that may lead to a Change Order/Claim?</b><br>No developments that may lead to a Change Oder during the day.<br><br><b>Were there any Delays in Work Progress today?</b><br>No delays in work progress encountered during the day.<br><br><b>General Comments:</b><br>Work Completed During the Day:<br><br>Sovereign: Provided oversight and on-site QC of Moretrench. Conducted photographic documentation of delivery imported backfill borrow and final lay-down area set-up. Photograph IDs: 081012-01 and 081012-02.<br><br>Moretrench: Began mixing slurry and filling tanks. Tested water line under pressuure and walked line. Fixed one (1) leak in line from hydrant. General site clean-up.<br><br>Materials Brought on Site:<br><br>325 cubic yards of imported backfill borrow. Soucre Graves, Templeton, MA<br><br>Equipment Brought on Site:<br><br>Cataplliar 374D Excavator<br>Cataplliar 329E Excavator<br><br><b>Verbal Instructions given by Government:</b><br>No verbal instruction given by the government during the day.<br><br><b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviuewed prior to start of work activties. |                                                                                                            |                                          |             |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                            |                                          |             |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                            |                                          |             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                            |                                          |             |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           | REPORT NUMBER<br>833                     |                           | Page 2 of 2 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |       |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|------------------------------------------|---------------------------|-------------|---------------|----------------------|---------------------|-----------------|-----------|--------------------------|------|------|-----------|----------|------|------|-----------|------------------|-------|------|-----------|----------------------|-----|------|-----------|---------------------------|-----|-----|-----------|-------------|-----|-----|-------|--|-----|------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           | DATE<br>10 Aug 2012 - Friday             |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |       |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                           | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |       |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |       |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |       |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |       |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table border="1"> <thead> <tr> <th>Employer</th> <th>Labor Classification</th> <th>Number of Employees</th> <th>Hours Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td>2.0</td> <td>16.0</td> </tr> <tr> <td>Sovereign</td> <td>SAFETY ENGINEER - ON SITE</td> <td>1.0</td> <td>2.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td colspan="2">Total</td> <td>7.0</td> <td>50.0</td> </tr> </tbody> </table> Total hours worked to date: 522.8 |                           |                                          |                           |             | Employer      | Labor Classification | Number of Employees | Hours Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 1.0  | 8.0  | Moretrech | LABORERS | 1.0  | 8.0  | Moretrech | PROJECT ENGINEER | 1.0   | 8.0  | Moretrech | SUPER - CONSTRUCTION | 2.0 | 16.0 | Sovereign | SAFETY ENGINEER - ON SITE | 1.0 | 2.0 | Sovereign | SUPER - JOB | 1.0 | 8.0 | Total |  | 7.0 | 50.0 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Labor Classification      | Number of Employees                      | Hours Worked              |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |       |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | HEAVY-EQUIPMENT OPERATOR  | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |       |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | LABORERS                  | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |       |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | PROJECT ENGINEER          | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |       |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | SUPER - CONSTRUCTION      | 2.0                                      | 16.0                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |       |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | SAFETY ENGINEER - ON SITE | 1.0                                      | 2.0                       |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |       |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | SUPER - JOB               | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |       |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           | 7.0                                      | 50.0                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |       |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| <b>EQUIPMENT HOURS</b><br><b>The following equipment hours were Reported today:</b> <table border="1"> <thead> <tr> <th>Serial Number</th> <th>Description</th> <th>Idle Hours</th> <th>Operating Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td>8.50</td> <td>0.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td>2.50</td> <td>6.00</td> </tr> <tr> <td colspan="2">Total</td> <td>11.00</td> <td>6.00</td> </tr> </tbody> </table> Total operating hours to date: 79.00                                                                                                                                                                                                                                                                                                                                                                       |                           |                                          |                           |             | Serial Number | Description          | Idle Hours          | Operating Hours | N/A       | Bull Dozer               | 8.50 | 0.00 | N/A       | Loader   | 2.50 | 6.00 | Total     |                  | 11.00 | 6.00 |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Description               | Idle Hours                               | Operating Hours           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |       |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Bull Dozer                | 8.50                                     | 0.00                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |       |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Loader                    | 2.50                                     | 6.00                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |       |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           | 11.00                                    | 6.00                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |       |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |       |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| <div style="height: 200px;"></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |       |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| <b>CONTRACTOR CERTIFICATION</b> <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |       |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           | DATE                                     | SUPERINTENDENT'S INITIALS |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |       |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                  |       |      |           |                      |     |      |           |                           |     |     |           |             |     |     |       |  |     |      |



|                                                                                     |                                                                                                      |                                          |             |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |                                                                                                      | REPORT NUMBER<br>836                     | Page 1 of 2 |
|                                                                                     |                                                                                                      | DATE<br>13 Aug 2012 - Monday             |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |                                                                                                      | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             | WEATHER<br>Weather Caused No Delay<br>Temperature Min 68 °F, Max 90 °F; No Precipitation; 5 MPH Wind |                                          |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.  
 Moretrench - Conducted site prep. and mobilization. Continued construction of working platform.

**Activities in Progress (List by Activity Number)**  
 DFW: Mobilization / Site Preparation in progress  
 DFW: Construction of Working Platform

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Moretrench conducted on-site preliminary QC testing on slurry being mixed in tanks to ensure correct mixture amounts to ensure all specifications will be met at the commencement of trench excavation activities.

**Did anything develop that may lead to a Change Order/Claim?**  
 No developments that may lead to a Change Order during the day.

**Were there any Delays in Work Progress today?**  
 No delays in work progress encountered during the day.

**General Comments:**  
 Work Completed During the Day:

Sovereign: Provided oversight and on-site QC of Moretrench. Conducted photographic documentation of delivery imported backfill borrow and final lay-down area set-up. Photograph IDs: 081012-01 and 081012-02.

Moretrench: Continued mixing slurry and filling tanks. Milton Cat/Astro Crane began assembly of excavator long stick. Miscellaneous fittings installed on tanks and water line. Continued construction of first 300 feet of working platform. Began stockpiling fill material using excavator to mine existing on-site soil stockpile for use in construction of the working platform.  
 General site clean-up.

Materials Brought on Site:

No additional material brought on-site during the day.

Equipment Brought on Site:

Long stick and boom  
 Terex Crane (T340 -1XL)  
 Northstar Scissor Lift  
 Extra hoses and fittings.

**Verbal Instructions given by Government:**  
 No verbal instruction given by the government during the day.

**Safety Inspection / Safety Meetings:**  
 Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's reviewed prior to start of work activities.

Lift Worksheet completed prior to commencement of crane pick of long stick and boom.  
 All lifting materials and apparatus were inspected prior to use.

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           | REPORT NUMBER<br>836 <span style="float: right;">Page 2 of 2</span> |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------------------------------------------|--------------------|---------------|----------------------|------------------------|--------------------|-----------|--------------------------|------|------|-----------|----------|------|------|--------------------------------------|------------------|-------------|------|-----------|----------------------|-----|------|-----------|---------------------------|-----|-----|-----------|-------------|-----|-----|-----------------------------------|--|-----------|------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           | DATE<br>13 Aug 2012 - Monday                                        |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| ACTIVITY START/FINISH<br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| QC REQUIREMENTS<br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| QA/QC DEFICIENCY (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| CONTRACTORS ON SITE (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">3.0</td> <td style="text-align: right;">24.0</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">2.0</td> <td style="text-align: right;">16.0</td> </tr> <tr> <td>Sovereign</td> <td>SAFETY ENGINEER - ON SITE</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">6.5</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">9.0</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total hours worked to date: 594.3</td> <td style="text-align: right; border-top: 1px solid black;">Total 9.0</td> <td style="text-align: right; border-top: 1px solid black;">71.5</td> </tr> </tbody> </table> |                           |                                                                     |                    | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 3.0  | 24.0 | Moretrech | LABORERS | 1.0  | 8.0  | Moretrech                            | PROJECT ENGINEER | 1.0         | 8.0  | Moretrech | SUPER - CONSTRUCTION | 2.0 | 16.0 | Sovereign | SAFETY ENGINEER - ON SITE | 1.0 | 6.5 | Sovereign | SUPER - JOB | 1.0 | 9.0 | Total hours worked to date: 594.3 |  | Total 9.0 | 71.5 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Labor Classification      | Number of<br>Employees                                              | Hours<br>Worked    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | HEAVY-EQUIPMENT OPERATOR  | 3.0                                                                 | 24.0               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | LABORERS                  | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | PROJECT ENGINEER          | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | SUPER - CONSTRUCTION      | 2.0                                                                 | 16.0               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | SAFETY ENGINEER - ON SITE | 1.0                                                                 | 6.5                |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | SUPER - JOB               | 1.0                                                                 | 9.0                |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| Total hours worked to date: 594.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                           | Total 9.0                                                           | 71.5               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| <b>EQUIPMENT HOURS</b><br><b>The following equipment hours were Reported today:</b> <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle<br/>Hours</th> <th style="text-align: right;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">1.50</td> <td style="text-align: right;">7.00</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total operating hours to date: 86.00</td> <td style="text-align: right; border-top: 1px solid black;">Total 10.00</td> <td style="text-align: right; border-top: 1px solid black;">7.00</td> </tr> </tbody> </table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                           |                                                                     |                    | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A       | Bull Dozer               | 8.50 | 0.00 | N/A       | Loader   | 1.50 | 7.00 | Total operating hours to date: 86.00 |                  | Total 10.00 | 7.00 |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Description               | Idle<br>Hours                                                       | Operating<br>Hours |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Bull Dozer                | 8.50                                                                | 0.00               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Loader                    | 1.50                                                                | 7.00               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| Total operating hours to date: 86.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           | Total 10.00                                                         | 7.00               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| CONTRACTOR CERTIFICATION <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | DATE                      | SUPERINTENDENT'S INITIALS                                           | DATE               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |                                      |                  |             |      |           |                      |     |      |           |                           |     |     |           |             |     |     |                                   |  |           |      |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                      |                                          |             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                      | REPORT NUMBER<br>837                     | Page 1 of 2 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                      | DATE<br>14 Aug 2012 - Tuesday            |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                      | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | WEATHER<br>Weather Caused No Delay<br>Temperature Min 68 °F, Max 90 °F; No Precipitation; 5 MPH Wind |                                          |             |
| <b>QC NARRATIVES</b><br><br><b>Contractor/Subcontractor &amp; Area of Responsibility for work:</b><br>Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.<br>Moretrench - Continued construction of working platform.<br><br><b>Activities in Progress (List by Activity Number)</b><br>DFW: mobilization/site preparation<br>DFW: Construction of Working Platform<br><br><b>Quality Control Inspections and Activities (List by Feature of Work)</b><br>Moretrench continued on-site preliminary QC testing on slurry being mixed in tanks to ensure correct mixture amounts to ensure all specifications will be met at the commencement of trench excavation activities.<br><br><b>Did anything develop that may lead to a Change Order/Claim?</b><br>No developments that may lead to a Change Order during the day.<br><br><b>Were there any Delays in Work Progress today?</b><br>No delays in work progress encountered during the day.<br><br><b>General Comments:</b><br>Work Completed During the Day:<br><br>Sovereign: Provided oversight and on-site QC of Moretrench. Conducted photographic documentation of delivery imported backfill borrow and final lay-down area set-up. Photograph IDs: 081412-01 and 0811412-10.<br><br>Moretrench: Worked on miscellaneous fittings on Adler tanks and water pipes. Continued mixing slurry and filling tanks. Milton Cat completed assembly of excavator long stick. Completed construction of first 300 feet of working platform. Continued stockpiling fill material using excavator to mine existing on-site soil stockpile for use in construction of the working platform.<br><br>General site clean-up.<br><br>Materials Brought on Site:<br><br>No additional material brought on-site during the day.<br><br>Equipment Brought on Site:<br><br>No additional equipment was brought onsite during the day.<br><br><b>Verbal Instructions given by Government:</b><br>No verbal instruction given by the government during the day.<br><br><b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's reviewed prior to start of work activities. |                                                                                                      |                                          |             |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                      |                                          |             |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                      |                                          |             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                      |                                          |             |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           | REPORT NUMBER<br>837 <span style="float: right;">Page 2 of 2</span> |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |       |       |                                       |                           |     |       |           |             |     |     |  |  |       |      |                                   |  |  |      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------------------------------------------|--------------------|---------------|----------------------|------------------------|--------------------|-----------|--------------------------|------|------|-----------|---------------------------|------|------|-----------|------------------|------|------|-----------|----------------------|------|------|-----------|------------------|-------|-------|---------------------------------------|---------------------------|-----|-------|-----------|-------------|-----|-----|--|--|-------|------|-----------------------------------|--|--|------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           | DATE<br>14 Aug 2012 - Tuesday                                       |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |       |       |                                       |                           |     |       |           |             |     |     |  |  |       |      |                                   |  |  |      |
| CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |       |       |                                       |                           |     |       |           |             |     |     |  |  |       |      |                                   |  |  |      |
| <b>QC REQUIREMENTS</b><br>No QC requirements were completed today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |       |       |                                       |                           |     |       |           |             |     |     |  |  |       |      |                                   |  |  |      |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br>No QC Deficiency items were issued today<br>No Deficiency items were corrected today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |       |       |                                       |                           |     |       |           |             |     |     |  |  |       |      |                                   |  |  |      |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br>No contractors had their first or last day on site today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |       |       |                                       |                           |     |       |           |             |     |     |  |  |       |      |                                   |  |  |      |
| <b>LABOR HOURS</b><br>The following labor hours were Reported today: <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">3.0</td> <td style="text-align: right;">24.5</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">2.0</td> <td style="text-align: right;">16.0</td> </tr> <tr> <td>Sovereign</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">2.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Sovereign</td> <td>SAFETY ENGINEER - ON SITE</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td colspan="2"></td> <td style="text-align: right; border-top: 1px solid black;">Total</td> <td style="text-align: right; border-top: 1px solid black;">11.0</td> </tr> <tr> <td colspan="2">Total hours worked to date: 674.8</td> <td></td> <td style="text-align: right;">80.5</td> </tr> </tbody> </table> |                           |                                                                     |                    | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 3.0  | 24.5 | Moretrech | LABORERS                  | 1.0  | 8.0  | Moretrech | PROJECT ENGINEER | 1.0  | 8.0  | Moretrech | SUPER - CONSTRUCTION | 2.0  | 16.0 | Sovereign | PROJECT ENGINEER | 2.0   | 8.0   | Sovereign                             | SAFETY ENGINEER - ON SITE | 1.0 | 8.0   | Sovereign | SUPER - JOB | 1.0 | 8.0 |  |  | Total | 11.0 | Total hours worked to date: 674.8 |  |  | 80.5 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Labor Classification      | Number of<br>Employees                                              | Hours<br>Worked    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |       |       |                                       |                           |     |       |           |             |     |     |  |  |       |      |                                   |  |  |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | HEAVY-EQUIPMENT OPERATOR  | 3.0                                                                 | 24.5               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |       |       |                                       |                           |     |       |           |             |     |     |  |  |       |      |                                   |  |  |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | LABORERS                  | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |       |       |                                       |                           |     |       |           |             |     |     |  |  |       |      |                                   |  |  |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | PROJECT ENGINEER          | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |       |       |                                       |                           |     |       |           |             |     |     |  |  |       |      |                                   |  |  |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | SUPER - CONSTRUCTION      | 2.0                                                                 | 16.0               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |       |       |                                       |                           |     |       |           |             |     |     |  |  |       |      |                                   |  |  |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | PROJECT ENGINEER          | 2.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |       |       |                                       |                           |     |       |           |             |     |     |  |  |       |      |                                   |  |  |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | SAFETY ENGINEER - ON SITE | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |       |       |                                       |                           |     |       |           |             |     |     |  |  |       |      |                                   |  |  |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | SUPER - JOB               | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |       |       |                                       |                           |     |       |           |             |     |     |  |  |       |      |                                   |  |  |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           | Total                                                               | 11.0               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |       |       |                                       |                           |     |       |           |             |     |     |  |  |       |      |                                   |  |  |      |
| Total hours worked to date: 674.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           |                                                                     | 80.5               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |       |       |                                       |                           |     |       |           |             |     |     |  |  |       |      |                                   |  |  |      |
| <b>EQUIPMENT HOURS</b><br>The following equipment hours were Reported today: <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle<br/>Hours</th> <th style="text-align: right;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">2.00</td> <td style="text-align: right;">6.00</td> </tr> <tr> <td>N/A</td> <td>Exacavtor with Long Stick</td> <td style="text-align: right;">6.50</td> <td style="text-align: right;">0.50</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">1.50</td> <td style="text-align: right;">7.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator #1</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">7.00</td> </tr> <tr> <td colspan="2"></td> <td style="text-align: right; border-top: 1px solid black;">Total</td> <td style="text-align: right; border-top: 1px solid black;">11.00</td> </tr> <tr> <td colspan="2">Total operating hours to date: 106.50</td> <td></td> <td style="text-align: right;">20.50</td> </tr> </tbody> </table>                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           |                                                                     |                    | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A       | Bull Dozer               | 2.00 | 6.00 | N/A       | Exacavtor with Long Stick | 6.50 | 0.50 | N/A       | Loader           | 1.50 | 7.00 | N/A       | Mixing Excavator #1  | 1.00 | 7.00 |           |                  | Total | 11.00 | Total operating hours to date: 106.50 |                           |     | 20.50 |           |             |     |     |  |  |       |      |                                   |  |  |      |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Description               | Idle<br>Hours                                                       | Operating<br>Hours |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |       |       |                                       |                           |     |       |           |             |     |     |  |  |       |      |                                   |  |  |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Bull Dozer                | 2.00                                                                | 6.00               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |       |       |                                       |                           |     |       |           |             |     |     |  |  |       |      |                                   |  |  |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Exacavtor with Long Stick | 6.50                                                                | 0.50               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |       |       |                                       |                           |     |       |           |             |     |     |  |  |       |      |                                   |  |  |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Loader                    | 1.50                                                                | 7.00               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |       |       |                                       |                           |     |       |           |             |     |     |  |  |       |      |                                   |  |  |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Mixing Excavator #1       | 1.00                                                                | 7.00               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |       |       |                                       |                           |     |       |           |             |     |     |  |  |       |      |                                   |  |  |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           | Total                                                               | 11.00              |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |       |       |                                       |                           |     |       |           |             |     |     |  |  |       |      |                                   |  |  |      |
| Total operating hours to date: 106.50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           |                                                                     | 20.50              |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |       |       |                                       |                           |     |       |           |             |     |     |  |  |       |      |                                   |  |  |      |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br>No accidents reported today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |       |       |                                       |                           |     |       |           |             |     |     |  |  |       |      |                                   |  |  |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |       |       |                                       |                           |     |       |           |             |     |     |  |  |       |      |                                   |  |  |      |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |       |       |                                       |                           |     |       |           |             |     |     |  |  |       |      |                                   |  |  |      |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | DATE                      | SUPERINTENDENT'S INITIALS                                           | DATE               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |       |       |                                       |                           |     |       |           |             |     |     |  |  |       |      |                                   |  |  |      |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                  | REPORT NUMBER<br>838                     | Page 1 of 2 |      |                |           |            |         |            |               |            |    |            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|------|----------------|-----------|------------|---------|------------|---------------|------------|----|------------|
| <b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                  | DATE<br>15 Aug 2012 - Wednesday          |             |      |                |           |            |         |            |               |            |    |            |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                  | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |      |                |           |            |         |            |               |            |    |            |
| CONTRACTOR<br>Sovereign Consulting Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | WEATHER<br>Weather Caused Non-Critical Delay<br>Temperature Min 68 °F, Max 85 °F; 2 IN Precipitation; 7 MPH Wind |                                          |             |      |                |           |            |         |            |               |            |    |            |
| <b>QC NARRATIVES</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                  |                                          |             |      |                |           |            |         |            |               |            |    |            |
| <b>Contractor/Subcontractor &amp; Area of Responsibility for work:</b><br>Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.<br>Moretrench - Continued construction of working platform.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                  |                                          |             |      |                |           |            |         |            |               |            |    |            |
| <b>Activities in Progress (List by Activity Number)</b><br>DFW: Soil/ Bentonite Wall Construction                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                  |                                          |             |      |                |           |            |         |            |               |            |    |            |
| <b>Quality Control Inspections and Activities (List by Feature of Work)</b><br>Moretrench continued on-site QC testing on slurry being mixed in tanks to ensure con met at the commencement of trench excavation activites. all specirfications will be                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                  |                                          |             |      |                |           |            |         |            |               |            |    |            |
| Testins Included:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                  |                                          |             |      |                |           |            |         |            |               |            |    |            |
| <table><tr><td>Test</td><td>Time Conducted</td></tr><tr><td>Viscosity</td><td>944 &amp; 1447</td></tr><tr><td>Density</td><td>945 &amp; 1453</td></tr><tr><td>Filtrate Loss</td><td>949 &amp; 1500</td></tr><tr><td>PH</td><td>953 &amp; 1530</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                  |                                          |             | Test | Time Conducted | Viscosity | 944 & 1447 | Density | 945 & 1453 | Filtrate Loss | 949 & 1500 | PH | 953 & 1530 |
| Test                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Time Conducted                                                                                                   |                                          |             |      |                |           |            |         |            |               |            |    |            |
| Viscosity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 944 & 1447                                                                                                       |                                          |             |      |                |           |            |         |            |               |            |    |            |
| Density                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 945 & 1453                                                                                                       |                                          |             |      |                |           |            |         |            |               |            |    |            |
| Filtrate Loss                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 949 & 1500                                                                                                       |                                          |             |      |                |           |            |         |            |               |            |    |            |
| PH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 953 & 1530                                                                                                       |                                          |             |      |                |           |            |         |            |               |            |    |            |
| All test results were with in acceptable ranges laid out in site Quality Controll Plans                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                  |                                          |             |      |                |           |            |         |            |               |            |    |            |
| <b>Did anything develop that may lead to a Change Order/Claim?</b><br>No developments that may lead to a Change Oder during the day.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                  |                                          |             |      |                |           |            |         |            |               |            |    |            |
| <b>Were there any Delays in Work Progress today?</b><br>No delays in work progress encountered during the day.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                  |                                          |             |      |                |           |            |         |            |               |            |    |            |
| <b>General Comments:</b><br>Work Completed During the Day:<br><br>Sovereign: Provided oversight and on-site QC of Moretrench. Conducted photographic documentation of delivery imported backfill borrow and final lay-down area set-up. Photograph IDs: 081512-01 and 0811512-06.<br><br>Moretrench: Worked on miscellaneous fittings on Adler tanks and water pipes. Continued mixing slurry and filling tanks. Milton Cat completed assembly of excavator long stick. Set Crane Mats on work platform. Positioned CAT 374 to prepare for Trench Excavation. Completed Lead in Trench Down to 16 ft @ 0+00.<br><br>General site clean-up.<br><br>Materials Brought on Site:<br><br>No additional material brough on-site during the day.<br><br>Equipment Brought on Site:<br><br>No additional equipment was brought onsite during the day. |                                                                                                                  |                                          |             |      |                |           |            |         |            |               |            |    |            |
| <b>Verbal Instructions given by Government:</b><br>No verbal instruction given by the government during the day.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                  |                                          |             |      |                |           |            |         |            |               |            |    |            |
| <b>Safety Inspection / Safety Meetings:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                  |                                          |             |      |                |           |            |         |            |               |            |    |            |

Precipitation amount should have been noted as 0.46 inches for the work shift.

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           | REPORT NUMBER<br>838 <span style="float: right;">Page 2 of 2</span> |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------------------------------------------|--------------------|---------------|----------------------|------------------------|--------------------|-----------|--------------------------|------|------|-----------|---------------------------|------|------|-----------|------------------|------|------|-----------|----------------------|------|------|---------------------------------------|------------------|-------------|------|-----------|---------------------------|-----|-----|-----------|-------------|-----|-----|-----------------------------------|--|------------|------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           | DATE<br>15 Aug 2012 - Wednesday                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |
| CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |
| Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's reviewed prior to start of work activities.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">4.0</td> <td style="text-align: right;">32.0</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">2.0</td> <td style="text-align: right;">16.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Sovereign</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">2.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Sovereign</td> <td>SAFETY ENGINEER - ON SITE</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total hours worked to date: 762.8</td> <td style="text-align: right; border-top: 1px solid black;">Total 12.0</td> <td style="text-align: right; border-top: 1px solid black;">88.0</td> </tr> </tbody> </table> |                           |                                                                     |                    | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 4.0  | 32.0 | Moretrech | LABORERS                  | 2.0  | 16.0 | Moretrech | PROJECT ENGINEER | 1.0  | 8.0  | Moretrech | SUPER - CONSTRUCTION | 1.0  | 8.0  | Sovereign                             | PROJECT ENGINEER | 2.0         | 8.0  | Sovereign | SAFETY ENGINEER - ON SITE | 1.0 | 8.0 | Sovereign | SUPER - JOB | 1.0 | 8.0 | Total hours worked to date: 762.8 |  | Total 12.0 | 88.0 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Labor Classification      | Number of<br>Employees                                              | Hours<br>Worked    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | HEAVY-EQUIPMENT OPERATOR  | 4.0                                                                 | 32.0               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | LABORERS                  | 2.0                                                                 | 16.0               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | PROJECT ENGINEER          | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | SUPER - CONSTRUCTION      | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | PROJECT ENGINEER          | 2.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | SAFETY ENGINEER - ON SITE | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | SUPER - JOB               | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |
| Total hours worked to date: 762.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                           | Total 12.0                                                          | 88.0               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |
| <b>EQUIPMENT HOURS</b><br><b>The following equipment hours were Reported today:</b> <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle<br/>Hours</th> <th style="text-align: right;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">7.00</td> <td style="text-align: right;">1.00</td> </tr> <tr> <td>N/A</td> <td>Exacavtor with Long Stick</td> <td style="text-align: right;">6.50</td> <td style="text-align: right;">1.50</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">4.00</td> <td style="text-align: right;">4.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator #1</td> <td style="text-align: right;">5.00</td> <td style="text-align: right;">3.00</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total operating hours to date: 116.00</td> <td style="text-align: right; border-top: 1px solid black;">Total 22.50</td> <td style="text-align: right; border-top: 1px solid black;">9.50</td> </tr> </tbody> </table>                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |                                                                     |                    | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A       | Bull Dozer               | 7.00 | 1.00 | N/A       | Exacavtor with Long Stick | 6.50 | 1.50 | N/A       | Loader           | 4.00 | 4.00 | N/A       | Mixing Excavator #1  | 5.00 | 3.00 | Total operating hours to date: 116.00 |                  | Total 22.50 | 9.50 |           |                           |     |     |           |             |     |     |                                   |  |            |      |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Description               | Idle<br>Hours                                                       | Operating<br>Hours |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Bull Dozer                | 7.00                                                                | 1.00               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Exacavtor with Long Stick | 6.50                                                                | 1.50               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Loader                    | 4.00                                                                | 4.00               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Mixing Excavator #1       | 5.00                                                                | 3.00               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |
| Total operating hours to date: 116.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                           | Total 22.50                                                         | 9.50               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |
| <b>CONTRACTOR CERTIFICATION</b> <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | DATE                      | SUPERINTENDENT'S INITIALS                                           | DATE               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |                                       |                  |             |      |           |                           |     |     |           |             |     |     |                                   |  |            |      |

|                                                                                     |                                                                                                          |                                                                        |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |                                                                                                          | REPORT NUMBER<br>839 <div style="text-align: right;">Page 1 of 3</div> |
|                                                                                     |                                                                                                          | DATE<br>16 Aug 2012 - Thursday                                         |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |                                                                                                          | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                               |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             | WEATHER<br>Weather Caused No Delay<br>Temperature Min 70 °F, Max 90 °F; 0.1 IN Precipitation; 5 MPH Wind |                                                                        |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.  
 Moretrench - Continued construction of working platform.

**Activities in Progress (List by Activity Number)**  
 DFW: Soil/ Bentonite Wall Construction

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Moretrench continued on-site QC testing on slurry being mixed in tanks to ensure correct mixture amounts to ensure all specifications will be met at the commencement of trench excavation activities. AMEC oversaw all QC testing to confirm it was completed properly and all results were within the acceptable range.

Testins Included:

|                          |                   |
|--------------------------|-------------------|
| Test                     | Time Conducted    |
| Viscosity-Initial        | 819 & 1238        |
| Viscosity- In trench     | 930, 1405 & 1649  |
| Density- Initial         | 824 & 1241        |
| Density- In trench       | 933, 1407 & 1653  |
| Filtrate Loss- Initial   | 905 & 1312        |
| Filtrate Loss- In trench | 1008, 1438 & 1720 |
| PH- Initial              | 826 & 1243        |

All test results were within acceptable ranges laid out in site Quality Control Plans

**Did anything develop that may lead to a Change Order/Claim?**  
 No developments that may lead to a Change Order during the day.

**Were there any Delays in Work Progress today?**  
 No delays in work progress encountered during the day.

**General Comments:**  
 Work Completed During the Day:

Sovereign: Provided oversight and on-site QC of Moretrench. Photographed progress as trench advanced. Photograph IDs: 081612-01 and 0811612-16.

Moretrench: Continued mixing slurry and filling tanks. Began mixing backfill with mixing excavator. Completed Trench from 0+00 to 0+30.

End of day depths:

|      |                                     |
|------|-------------------------------------|
| 0-25 | 0 ft                                |
| 0-20 | 6.7 ft                              |
| 0-10 | 23.0 ft                             |
| 0+00 | 24.0 ft                             |
| 0+10 | 22.0 ft                             |
| 0+20 | 24.0 ft                             |
| 0+30 | 25.0 ft                             |
| 0+40 | 23.3 ft * Rock not encountered yet* |

Materials Brought on Site:

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           | REPORT NUMBER<br>839                     |                 | Page 2 of 3 |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                           |       |       |                                   |  |       |       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|------------------------------------------|-----------------|-------------|---------------|----------------------|---------------------|-----------------|-----------|--------------------------|-------|------|-----------|---------------------------|------|------|-----------|------------------|------|------|-----------|----------------------|------|------|-----------|------------------|------|------|---------------------------------------|---------------------------|-------|-------|-----------------------------------|--|-------|-------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           | DATE<br>16 Aug 2012 - Thursday           |                 |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                           |       |       |                                   |  |       |       |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                           | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |                 |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                           |       |       |                                   |  |       |       |
| <p>No additional material brough on-site during the day.</p> <p>Equipment Brought on Site:</p> <p>Milton CAT Delievered 950K Loader.</p> <p><b>Verbal Instructions given by Government:</b></p> <p>No verbal instruction given by the government during the day.</p> <p><b>Safety Inspection / Safety Meetings:</b></p> <p>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviewed prior to start of work activties.</p>                                                                                                                                                                                                                                                                                                                                                                                                          |                           |                                          |                 |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                           |       |       |                                   |  |       |       |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           |                                          |                 |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                           |       |       |                                   |  |       |       |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |                                          |                 |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                           |       |       |                                   |  |       |       |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           |                                          |                 |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                           |       |       |                                   |  |       |       |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                           |                                          |                 |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                           |       |       |                                   |  |       |       |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           |                                          |                 |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                           |       |       |                                   |  |       |       |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table border="1"> <thead> <tr> <th>Employer</th> <th>Labor Classification</th> <th>Number of Employees</th> <th>Hours Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td>4.0</td> <td>40.5</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td>3.0</td> <td>26.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td>1.0</td> <td>10.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td>1.0</td> <td>10.0</td> </tr> <tr> <td>Sovereign</td> <td>PROJECT ENGINEER</td> <td>2.0</td> <td>20.0</td> </tr> <tr> <td>Sovereign</td> <td>SAFETY ENGINEER - ON SITE</td> <td>1.0</td> <td>10.0</td> </tr> <tr> <td colspan="2">Total hours worked to date: 879.3</td> <td>Total</td> <td>116.5</td> </tr> </tbody> </table> |                           |                                          |                 |             | Employer      | Labor Classification | Number of Employees | Hours Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 4.0   | 40.5 | Moretrech | LABORERS                  | 3.0  | 26.0 | Moretrech | PROJECT ENGINEER | 1.0  | 10.0 | Moretrech | SUPER - CONSTRUCTION | 1.0  | 10.0 | Sovereign | PROJECT ENGINEER | 2.0  | 20.0 | Sovereign                             | SAFETY ENGINEER - ON SITE | 1.0   | 10.0  | Total hours worked to date: 879.3 |  | Total | 116.5 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Labor Classification      | Number of Employees                      | Hours Worked    |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                           |       |       |                                   |  |       |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | HEAVY-EQUIPMENT OPERATOR  | 4.0                                      | 40.5            |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                           |       |       |                                   |  |       |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | LABORERS                  | 3.0                                      | 26.0            |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                           |       |       |                                   |  |       |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | PROJECT ENGINEER          | 1.0                                      | 10.0            |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                           |       |       |                                   |  |       |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | SUPER - CONSTRUCTION      | 1.0                                      | 10.0            |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                           |       |       |                                   |  |       |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | PROJECT ENGINEER          | 2.0                                      | 20.0            |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                           |       |       |                                   |  |       |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | SAFETY ENGINEER - ON SITE | 1.0                                      | 10.0            |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                           |       |       |                                   |  |       |       |
| Total hours worked to date: 879.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           | Total                                    | 116.5           |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                           |       |       |                                   |  |       |       |
| <b>EQUIPMENT HOURS</b><br><b>The following equipment hours were Reported today:</b> <table border="1"> <thead> <tr> <th>Serial Number</th> <th>Description</th> <th>Idle Hours</th> <th>Operating Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td>10.00</td> <td>0.00</td> </tr> <tr> <td>N/A</td> <td>Exacavtor with Long Stick</td> <td>1.50</td> <td>8.50</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td>2.00</td> <td>8.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator #1</td> <td>1.00</td> <td>9.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td>0.00</td> <td>1.00</td> </tr> <tr> <td colspan="2">Total operating hours to date: 142.50</td> <td>Total</td> <td>26.50</td> </tr> </tbody> </table>                                                                                                                              |                           |                                          |                 |             | Serial Number | Description          | Idle Hours          | Operating Hours | N/A       | Bull Dozer               | 10.00 | 0.00 | N/A       | Exacavtor with Long Stick | 1.50 | 8.50 | N/A       | Loader           | 2.00 | 8.00 | N/A       | Mixing Excavator #1  | 1.00 | 9.00 | N/A       | Mixing Loader    | 0.00 | 1.00 | Total operating hours to date: 142.50 |                           | Total | 26.50 |                                   |  |       |       |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Description               | Idle Hours                               | Operating Hours |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                           |       |       |                                   |  |       |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Bull Dozer                | 10.00                                    | 0.00            |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                           |       |       |                                   |  |       |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Exacavtor with Long Stick | 1.50                                     | 8.50            |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                           |       |       |                                   |  |       |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Loader                    | 2.00                                     | 8.00            |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                           |       |       |                                   |  |       |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Mixing Excavator #1       | 1.00                                     | 9.00            |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                           |       |       |                                   |  |       |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Mixing Loader             | 0.00                                     | 1.00            |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                           |       |       |                                   |  |       |       |
| Total operating hours to date: 142.50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           | Total                                    | 26.50           |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                           |       |       |                                   |  |       |       |



|                                                                                                                                                                                                                                                                                                                       |  |                                          |                           |             |      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------|---------------------------|-------------|------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                   |  | REPORT NUMBER<br>839                     |                           | Page 3 of 3 |      |
|                                                                                                                                                                                                                                                                                                                       |  | DATE<br>16 Aug 2012 - Thursday           |                           |             |      |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                      |  | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |                           |             |      |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                  |  |                                          |                           |             |      |
|                                                                                                                                                                                                                                                                                                                       |  |                                          |                           |             |      |
| CONTRACTOR CERTIFICATION <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b> |  |                                          |                           |             |      |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                         |  | DATE                                     | SUPERINTENDENT'S INITIALS |             | DATE |

|                                                                                     |  |                                                                                                      |             |
|-------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |  | REPORT NUMBER<br>840                                                                                 | Page 1 of 3 |
|                                                                                     |  | DATE<br>17 Aug 2012 - Friday                                                                         |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |  | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                             |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             |  | WEATHER<br>Weather Caused No Delay<br>Temperature Min 70 °F, Max 90 °F; No Precipitation; 5 MPH Wind |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.  
 AMEC - Provided on-site engineering services and oversight of all field QC testing.  
 Moretrench - Excavation and Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil/ Bentonite Wall Construction  
 Construction of Working Platform

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Moretrench completed on-site QC testing of slurry being mixed in tanks prior to placement in trench along with on-site QC testing of slurry within the trench. AMEC provided oversight of all field QC testing to confirm testing was completed properly as per project specification and all results were within the acceptable ranges.

On-site QC Testing Performed:

Bentonite Slurry:

| Test                     | Time Conducted    |
|--------------------------|-------------------|
| Viscosity-Initial        | 0834 & 1239       |
| Viscosity- In trench     | 0934, 1405 & 1650 |
| Density- Initial         | 0837 & 1241       |
| Density- In trench       | 0937, 1406 & 1653 |
| Filtrate Loss- Initial   | 0909 & 1312       |
| Filtrate Loss- In trench | 1008, 1441 & 1721 |
| pH- Initial              | 0826 & 1243       |

All test results were with in acceptable as specified in project specifications and project Quality Controll Plans.

Soil-Bentonite Backfill:

| Test    | Time Conducted |
|---------|----------------|
| Slump   | 0812           |
| Density | 0845 &1334     |

All test results were with in acceptable as specified in project specifications and project Quality Controll Plans.

Sample collected of Soil-Bentonite Backfill for off-site analysis of Permeability, Gradation, and Materials Fines Content.

Backfill Slope soundings conducted at stations at the start and end of the work shift.

**Did anything develop that may lead to a Change Order/Claim ?**  
 No developments that may lead to a Change Oder during the day.

**Were there any Delays in Work Progress today?**  
 No delays in work progress encountered during the day.

**General Comments:**

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                          | REPORT NUMBER<br>840                     | Page 2 of 3  |          |                      |                     |              |           |                          |      |       |           |          |     |      |           |                  |     |     |           |                      |     |     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|------------------------------------------|--------------|----------|----------------------|---------------------|--------------|-----------|--------------------------|------|-------|-----------|----------|-----|------|-----------|------------------|-----|-----|-----------|----------------------|-----|-----|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                          | DATE<br>17 Aug 2012 - Friday             |              |          |                      |                     |              |           |                          |      |       |           |          |     |      |           |                  |     |     |           |                      |     |     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                          | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |              |          |                      |                     |              |           |                          |      |       |           |          |     |      |           |                  |     |     |           |                      |     |     |
| <p>Work Completed During the Day:</p> <p>Sovereign: Provided project oversight and on-site QC of Moretrench and AMEC. Photographed progress as trench advanced.</p> <p>AMEC: Provided oversight of on-site QC testing performed by Moretrench and trench exvavation activities including the determination of final trench depths and if refusal criteria had been met at each 10 foot station.</p> <p>Moretrench: Continued mixing slurry and filling tanks. Continued backfill mixing with excavator. Completed excavation of trench from 0+30 to 0+70. Backfilled trench with 1 batch of backfill (102 cy). Performed all required on-site QC testing.</p> <p>Final Trench Depths at 10 foot stations during the day:</p> <table border="1"> <thead> <tr> <th>Station</th> <th>Final Trench Depth</th> </tr> </thead> <tbody> <tr> <td>0+40</td> <td>24.9'</td> </tr> <tr> <td>0+50</td> <td>32.4'</td> </tr> <tr> <td>0+60</td> <td>34.3'</td> </tr> </tbody> </table> <p>Materials Brought on Site:</p> <p>No additional material brought on-site during the day.</p> <p>Equipment Brought on Site:</p> <p>No additional equipment brought on-site during the day.</p> <p><b>Verbal Instructions given by Government:</b></p> <p>No verbal instruction given by the government during the day.</p> <p><b>Safety Inspection / Safety Meetings:</b></p> <p>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviewed prior to start of work activties.</p> |                          |                                          |              | Station  | Final Trench Depth   | 0+40                | 24.9'        | 0+50      | 32.4'                    | 0+60 | 34.3' |           |          |     |      |           |                  |     |     |           |                      |     |     |
| Station                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Final Trench Depth       |                                          |              |          |                      |                     |              |           |                          |      |       |           |          |     |      |           |                  |     |     |           |                      |     |     |
| 0+40                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 24.9'                    |                                          |              |          |                      |                     |              |           |                          |      |       |           |          |     |      |           |                  |     |     |           |                      |     |     |
| 0+50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 32.4'                    |                                          |              |          |                      |                     |              |           |                          |      |       |           |          |     |      |           |                  |     |     |           |                      |     |     |
| 0+60                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 34.3'                    |                                          |              |          |                      |                     |              |           |                          |      |       |           |          |     |      |           |                  |     |     |           |                      |     |     |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                          |                                          |              |          |                      |                     |              |           |                          |      |       |           |          |     |      |           |                  |     |     |           |                      |     |     |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                          |                                          |              |          |                      |                     |              |           |                          |      |       |           |          |     |      |           |                  |     |     |           |                      |     |     |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          |                                          |              |          |                      |                     |              |           |                          |      |       |           |          |     |      |           |                  |     |     |           |                      |     |     |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                          |                                          |              |          |                      |                     |              |           |                          |      |       |           |          |     |      |           |                  |     |     |           |                      |     |     |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                          |                                          |              |          |                      |                     |              |           |                          |      |       |           |          |     |      |           |                  |     |     |           |                      |     |     |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table border="1"> <thead> <tr> <th>Employer</th> <th>Labor Classification</th> <th>Number of Employees</th> <th>Hours Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td>4.0</td> <td>32.5</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td>3.0</td> <td>24.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td>1.0</td> <td>8.0</td> </tr> </tbody> </table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                          |                                          |              | Employer | Labor Classification | Number of Employees | Hours Worked | Moretrech | HEAVY-EQUIPMENT OPERATOR | 4.0  | 32.5  | Moretrech | LABORERS | 3.0 | 24.0 | Moretrech | PROJECT ENGINEER | 1.0 | 8.0 | Moretrech | SUPER - CONSTRUCTION | 1.0 | 8.0 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Labor Classification     | Number of Employees                      | Hours Worked |          |                      |                     |              |           |                          |      |       |           |          |     |      |           |                  |     |     |           |                      |     |     |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | HEAVY-EQUIPMENT OPERATOR | 4.0                                      | 32.5         |          |                      |                     |              |           |                          |      |       |           |          |     |      |           |                  |     |     |           |                      |     |     |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | LABORERS                 | 3.0                                      | 24.0         |          |                      |                     |              |           |                          |      |       |           |          |     |      |           |                  |     |     |           |                      |     |     |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | PROJECT ENGINEER         | 1.0                                      | 8.0          |          |                      |                     |              |           |                          |      |       |           |          |     |      |           |                  |     |     |           |                      |     |     |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | SUPER - CONSTRUCTION     | 1.0                                      | 8.0          |          |                      |                     |              |           |                          |      |       |           |          |     |      |           |                  |     |     |           |                      |     |     |

|                                                                                                                                                                                                                                                                                                                       |                                 |                                          |                           |             |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|------------------------------------------|---------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                   |                                 | REPORT NUMBER<br>840                     |                           | Page 3 of 3 |
|                                                                                                                                                                                                                                                                                                                       |                                 | DATE<br>17 Aug 2012 - Friday             |                           |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                      |                                 | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |                           |             |
| Sovereign<br>Sovereign<br>Total hours worked to date: 975.8                                                                                                                                                                                                                                                           | PROJECT ENGINEER<br>SUPER - JOB | 2.0<br>1.0<br>Total 12.0                 | 16.0<br>8.0<br>96.5       |             |
| <b>EQUIPMENT HOURS</b><br>The following equipment hours were Reported today:                                                                                                                                                                                                                                          |                                 |                                          |                           |             |
| Serial Number                                                                                                                                                                                                                                                                                                         | Description                     | Idle Hours                               | Operating Hours           |             |
| N/A                                                                                                                                                                                                                                                                                                                   | Bull Dozer                      | 8.00                                     | 0.00                      |             |
| N/A                                                                                                                                                                                                                                                                                                                   | Exacavtor with Long Stick       | 0.50                                     | 8.00                      |             |
| N/A                                                                                                                                                                                                                                                                                                                   | Loader                          | 4.00                                     | 4.00                      |             |
| N/A                                                                                                                                                                                                                                                                                                                   | Mixing Excavator                | 0.50                                     | 8.00                      |             |
| N/A                                                                                                                                                                                                                                                                                                                   | Mixing Loader                   | 0.50                                     | 8.00                      |             |
| Total operating hours to date: 170.50                                                                                                                                                                                                                                                                                 |                                 | Total 13.50                              | 28.00                     |             |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                  |                                 |                                          |                           |             |
|                                                                                                                                                                                                                                                                                                                       |                                 |                                          |                           |             |
| CONTRACTOR CERTIFICATION <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b> |                                 |                                          |                           |             |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                         |                                 | DATE                                     | SUPERINTENDENT'S INITIALS | DATE        |

|                                                                                     |  |                                                                                                      |             |
|-------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |  | REPORT NUMBER<br>843                                                                                 | Page 1 of 3 |
|                                                                                     |  | DATE<br>20 Aug 2012 - Monday                                                                         |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |  | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                             |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             |  | WEATHER<br>Weather Caused No Delay<br>Temperature Min 60 °F, Max 82 °F; No Precipitation; 5 MPH Wind |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench and AMEC. Provided on-site QC and documentation.  
 AMEC - Provided on-site engineering services and oversight of all field QC testing.  
 Moretrench - Excavation and Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
 Contruction of Working Platform

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Moretrench completed on-site QC testing of slurry being mixed in tanks prior to placement in trench along with on-site QC testing of slurry within the trench. Moretrech and AMEC also conducted on-site QC testing of backfill batches. Samples of backfill batches also collected for off-site QC testing. AMEC provided oversight of all Moretrench field QC testing to confirm testing was completed properly as per project specification and all results were within the acceptable ranges.

On-site QC Testing Performed:

Bentonite Slurry:

|                          |                   |
|--------------------------|-------------------|
| Test                     | Time Conducted    |
| Viscosity-Initial        | 1250 & 1454       |
| Viscosity- In trench     | 0849, 1015 & 1530 |
| Density- Initial         | 1253 & 1456       |
| Density- In trench       | 0851, 1018 & 1534 |
| Filtrate Loss- Initial   | 1324 & 1528       |
| Filtrate Loss- In trench | 0921, 1048 & 1605 |
| pH- Initial              | 1256 & 1500       |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Soil-Bentonite Backfill:

|         |                |
|---------|----------------|
| Test    | Time Conducted |
| Slump   | 0832 & 1145    |
| Density | 0845 & 1245    |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Samples collected of Soil-Bentonite Backfill for off-site analysis of Permeability, Gradation, and Materials Fines Content.

Backfill Slope soundings conducted at stations at the start and end of the work shift.

**Did anything develop that may lead to a Change Order/Claim ?**  
 No developments that may lead to a Change Oder during the day.

**Were there any Delays in Work Progress today?**  
 No delays in work progress encountered during the day.

**General Comments:**

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                    | REPORT NUMBER<br>843                     | Page 2 of 3 |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|------------------------------------------|-------------|---------|--------------------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                    | DATE<br>20 Aug 2012 - Monday             |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                    | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| <p>Work Completed During the Day:</p> <p>Sovereign: Provided project oversight and on-site QC of Moretrench and AMEC. Photographed progress of excavation and backfill mizing as trench advanced. Photo IDs: 082012-01 through 082012-12.</p> <p>AMEC: Provided oversight of on-site QC testing performed by Moretrench and trench exvcavation activities. Also made final determination of trench depths and if refusal criteria had been met at each 10 foot station.</p> <p>Moretrench: Continued mixing slurry and filling tanks. Continued backfill mixing with excavator. Completed excavation of trench from 0+70 to 1+70. Backfilled trench with 2 1/4 batches of backfill (220 cy). Backfill complete at station 0+30 and present at approximately station 1+20 at end of the shift. Performed all required on-site QC testing.</p> <p>Final Trench Depths at 10 foot stations during the day:</p> <table border="1"> <thead> <tr> <th>Station</th> <th>Final Trench Depth</th> </tr> </thead> <tbody> <tr><td>0+70</td><td>30.2'</td></tr> <tr><td>0+80</td><td>23.8'</td></tr> <tr><td>0+90</td><td>22.7'</td></tr> <tr><td>1+00</td><td>20.5'</td></tr> <tr><td>1+10</td><td>21.8'</td></tr> <tr><td>1+20</td><td>22.8'</td></tr> <tr><td>1+30</td><td>23.1'</td></tr> <tr><td>1+40</td><td>24.3'</td></tr> <tr><td>1+50</td><td>25.4'</td></tr> <tr><td>1+60</td><td>25.2'</td></tr> <tr><td>1+70</td><td>27.0'</td></tr> </tbody> </table> <p>Materials Brought on Site:</p> <p>No additional material brought on-site during the day.</p> <p>Equipment Brought on Site:</p> <p>No additional equipment brought on-site during the day.</p> <p><b>Verbal Instructions given by Government:</b></p> <p>No verbal instruction given by the government during the day.</p> <p><b>Safety Inspection / Safety Meetings:</b></p> <p>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviuewed prior to start of work activties.</p> |                    |                                          |             | Station | Final Trench Depth | 0+70 | 30.2' | 0+80 | 23.8' | 0+90 | 22.7' | 1+00 | 20.5' | 1+10 | 21.8' | 1+20 | 22.8' | 1+30 | 23.1' | 1+40 | 24.3' | 1+50 | 25.4' | 1+60 | 25.2' | 1+70 | 27.0' |
| Station                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Final Trench Depth |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| 0+70                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 30.2'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| 0+80                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 23.8'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| 0+90                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 22.7'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| 1+00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 20.5'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| 1+10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 21.8'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| 1+20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 22.8'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| 1+30                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 23.1'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| 1+40                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 24.3'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| 1+50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 25.4'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| 1+60                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 25.2'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| 1+70                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 27.0'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| Empty section for additional notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |      |       |

|                                          |             |
|------------------------------------------|-------------|
| REPORT NUMBER<br>843                     | Page 3 of 3 |
| DATE<br>20 Aug 2012 - Monday             |             |
| CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |

CONTRACT NUMBER  
W912WJ-10-D-0003 0002

**No accidents reported today**

|                               |      |                           |      |
|-------------------------------|------|---------------------------|------|
| QC REPRESENTATIVE'S SIGNATURE | DATE | SUPERINTENDENT'S INITIALS | DATE |
|-------------------------------|------|---------------------------|------|

|                                                                                     |  |                                                                                                      |             |
|-------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |  | REPORT NUMBER<br>844                                                                                 | Page 1 of 3 |
|                                                                                     |  | DATE<br>21 Aug 2012 - Tuesday                                                                        |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |  | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                             |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             |  | WEATHER<br>Weather Caused No Delay<br>Temperature Min 65 °F, Max 83 °F; No Precipitation; 5 MPH Wind |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench and AMEC. Provided on-site QC and documentation.  
 AMEC - Provided on-site engineering services and oversight of all field QC testing.  
 Moretrench - Excavation and Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
 Contruction of Working Platform

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Initial Inspection for DFW: Soil-Bentonite Wall Construction and Preparatory Meeting for DFW: On-site Stockpiling of Excess Soil Materials held during the day.

All imported borrow backfill material brought on site during the day inspected upon arrival. No physical defecencies noted.

Moretrench completed on-site QC testing of slurry being mixed in tanks prior to placement in trench along with on-site QC testing of slurry within the trench. Moretrech and AMEC also conducted on-site QC testing of backfill batches. Samples of backfill batches also collected for off-site QC testing. AMEC provided oversight of all Moretrench field QC testing to confirm testing was completed properly as per project specification and all results were within acceptable ranges.

On-site QC Testing Performed:

Bentonite Slurry:

| Test                     | Time Conducted    |
|--------------------------|-------------------|
| Viscosity-Initial        | 0845 & 1454       |
| Viscosity- In trench     | 0849, 1106 & 1540 |
| Density- Initial         | 0853 & 1456       |
| Density- In trench       | 0853, 1108 & 1544 |
| Filtrate Loss- Initial   | 0924 & 1528       |
| Filtrate Loss- In trench | 0931, 1140 & 1607 |
| pH- Initial              | 0900 & 1500       |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Soil-Bentonite Backfill:

| Test    | Time Conducted     |
|---------|--------------------|
| Slump   | 0834, 1145, & 1439 |
| Density | 0853, 1200, & 1451 |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Samples collected of Soil-Bentonite Backfill for off-site analysis of Permeability, Gradation, and Materials Fines Content.

Backfill Slope soundings conducted at stations at the start and end of the work shift.  
 Current trench profile emailed under seperate cover to USACE representatives.

**Did anything develop that may lead to a Change Order/Claim ?**  
 No developments that may lead to a Change Oder during the day.



| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                    | REPORT NUMBER<br>844                     | Page 2 of 3 |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|------------------------------------------|-------------|---------|--------------------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                    | DATE<br>21 Aug 2012 - Tuesday            |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| <p><b>Were there any Delays in Work Progress today?</b><br/>         No delays in work progress encountered during the day.</p> <p><b>General Comments:</b><br/>         Work Completed During the Day:</p> <p>Sovereign: Provided project oversight and on-site QC of Moretrench and AMEC. Photographed progress of excavation and backfill mizing as trench advanced. Photo IDs: 082112-01 through 082112-14.</p> <p>AMEC: Provided oversight of on-site QC testing performed by Moretrench and trench exvcavation activities. Also made final determination of trench depths and if refusal criteria had been met at each 10 foot station.</p> <p>Moretrench: Continued mixing slurry and filling tanks. Continued backfill mixing with excavator. Completed excavation of trench from 1+70 to 2+40. Backfilled trench with 2 3/4 batches of backfill (248 cy). Backfill complete at station 1+00. Backfill quantities summarized on Trench Profile submitted under seperate cover the USACE representatives. Performed all required on-site QC testing.</p> <p>Final Trench Depths at 10 foot stations during the day:</p> <table border="1"> <thead> <tr> <th>Station</th> <th>Final Trench Depth</th> </tr> </thead> <tbody> <tr> <td>1+80</td> <td>27.3'</td> </tr> <tr> <td>1+90</td> <td>26.7'</td> </tr> <tr> <td>2+00</td> <td>28.7'</td> </tr> <tr> <td>2+10</td> <td>29.1'</td> </tr> <tr> <td>2+20</td> <td>31.0'</td> </tr> <tr> <td>2+30</td> <td>30.2'</td> </tr> <tr> <td>2+40</td> <td>30.1'</td> </tr> </tbody> </table> <p>Materials Brought on Site:</p> <p>200 cys of Imported Clay Borrow for use in Backfill Mix brought on site during the day (W.J. Graves)</p> <p>Equipment Brought on Site:</p> <p>No additional equipment brought on-site during the day.</p> <p>Additional Note:</p> <p>Landfill liner encountered at station 2+55. Liner did not appear to be continuous, only a small patch.</p> <p><b>Verbal Instructions given by Government:</b><br/>         Randy LeCuyer (USACE Construction Representative) asked that the secondary containment around the fuel cell and generator be tightened up in the two front corners. This was completed by Moretrench during the day.</p> <p><b>Safety Inspection / Safety Meetings:</b><br/>         Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviuewed prior to start of work activties.</p> |                    |                                          |             | Station | Final Trench Depth | 1+80 | 27.3' | 1+90 | 26.7' | 2+00 | 28.7' | 2+10 | 29.1' | 2+20 | 31.0' | 2+30 | 30.2' | 2+40 | 30.1' |
| Station                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Final Trench Depth |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| 1+80                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 27.3'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| 1+90                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 26.7'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| 2+00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 28.7'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| 2+10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 29.1'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| 2+20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 31.0'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| 2+30                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 30.2'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| 2+40                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 30.1'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| <p><b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)</p> <p><b>A preparatory inspection was held today for the following feature:</b><br/>         Stockpiling of Soil Materials</p> <p><b>An initial inspection was held today for the following feature:</b><br/>         Soil-Bentonite Wall Construct.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| <p><b>ACTIVITY START/FINISH</b></p> <p><b>No activities were started or finished today</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| Empty space for additional notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           | REPORT NUMBER<br>844 <span style="float: right;">Page 3 of 3</span> |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------------------------------------------|--------------------|---------------|----------------------|------------------------|--------------------|-----------|--------------------------|-------|------|-----------|---------------------------|------|-------|-----------|------------------|------|------|-----------|----------------------|------|------|-----------|------------------|------|------|-----------|-------------|-------|-------|---------------------------------------|--|-------|-------|-------------------------------------|--|--|-------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                           | DATE<br>21 Aug 2012 - Tuesday                                       |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| <b>QC REQUIREMENTS</b><br>No QC requirements were completed today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br>No QC Deficiency items were issued today<br>No Deficiency items were corrected today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br>No contractors had their first or last day on site today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| <b>LABOR HOURS</b><br>The following labor hours were Reported today: <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">4.0</td> <td style="text-align: right;">40.5</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">3.0</td> <td style="text-align: right;">30.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td>Sovereign</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td colspan="2"></td> <td style="text-align: right; border-top: 1px solid black;">Total</td> <td style="text-align: right; border-top: 1px solid black;">11.0</td> </tr> <tr> <td colspan="2">Total hours worked to date: 1,194.8</td> <td></td> <td style="text-align: right; border-top: 1px solid black;">110.5</td> </tr> </tbody> </table> |                           |                                                                     |                    | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 4.0   | 40.5 | Moretrech | LABORERS                  | 3.0  | 30.0  | Moretrech | PROJECT ENGINEER | 1.0  | 10.0 | Moretrech | SUPER - CONSTRUCTION | 1.0  | 10.0 | Sovereign | PROJECT ENGINEER | 1.0  | 10.0 | Sovereign | SUPER - JOB | 1.0   | 10.0  |                                       |  | Total | 11.0  | Total hours worked to date: 1,194.8 |  |  | 110.5 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Labor Classification      | Number of<br>Employees                                              | Hours<br>Worked    |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | HEAVY-EQUIPMENT OPERATOR  | 4.0                                                                 | 40.5               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | LABORERS                  | 3.0                                                                 | 30.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | PROJECT ENGINEER          | 1.0                                                                 | 10.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | SUPER - CONSTRUCTION      | 1.0                                                                 | 10.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | PROJECT ENGINEER          | 1.0                                                                 | 10.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | SUPER - JOB               | 1.0                                                                 | 10.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           | Total                                                               | 11.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| Total hours worked to date: 1,194.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |                                                                     | 110.5              |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| <b>EQUIPMENT HOURS</b><br>The following equipment hours were Reported today: <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle<br/>Hours</th> <th style="text-align: right;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">10.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Exacavtor with Long Stick</td> <td style="text-align: right;">0.50</td> <td style="text-align: right;">10.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">6.00</td> <td style="text-align: right;">4.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">9.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">9.00</td> </tr> <tr> <td colspan="2"></td> <td style="text-align: right; border-top: 1px solid black;">Total</td> <td style="text-align: right; border-top: 1px solid black;">19.00</td> </tr> <tr> <td colspan="2">Total operating hours to date: 236.50</td> <td></td> <td style="text-align: right; border-top: 1px solid black;">32.00</td> </tr> </tbody> </table>                                                                                                                                                                         |                           |                                                                     |                    | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A       | Bull Dozer               | 10.50 | 0.00 | N/A       | Exacavtor with Long Stick | 0.50 | 10.00 | N/A       | Loader           | 6.00 | 4.00 | N/A       | Mixing Excavator     | 1.00 | 9.00 | N/A       | Mixing Loader    | 1.00 | 9.00 |           |             | Total | 19.00 | Total operating hours to date: 236.50 |  |       | 32.00 |                                     |  |  |       |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Description               | Idle<br>Hours                                                       | Operating<br>Hours |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Bull Dozer                | 10.50                                                               | 0.00               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Exacavtor with Long Stick | 0.50                                                                | 10.00              |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Loader                    | 6.00                                                                | 4.00               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Mixing Excavator          | 1.00                                                                | 9.00               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Mixing Loader             | 1.00                                                                | 9.00               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           | Total                                                               | 19.00              |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| Total operating hours to date: 236.50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           |                                                                     | 32.00              |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br>No accidents reported today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | DATE                      | SUPERINTENDENT'S INITIALS                                           | DATE               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |

|                                                                                     |  |                                                                                                      |             |
|-------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |  | REPORT NUMBER<br>845                                                                                 | Page 1 of 3 |
|                                                                                     |  | DATE<br>22 Aug 2012 - Wednesday                                                                      |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |  | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                             |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             |  | WEATHER<br>Weather Caused No Delay<br>Temperature Min 70 °F, Max 85 °F; No Precipitation; 5 MPH Wind |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench and AMEC. Provided on-site QC and documentation.  
 AMEC - Provided on-site engineering services and oversight of all field QC testing.  
 Moretrench - Excavation and Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
 Contruction of Working Platform

**Quality Control Inspections and Activities (List by Feature of Work)**  
 All imported borrow backfill material brought on site during the day inspected upon arrival. No physical defecencies noted.

Moretrench completed on-site QC testing of slurry being mixed in tanks prior to placement in trench along with on-site QC testing of slurry within the trench. Moretrech and AMEC also conducted on-site QC testing of backfill batches. Samples of backfill batches also collected for off-site QC testing. AMEC provided oversight of all Moretrench field QC testing to confirm testing was completed properly as per project specification and all results were within acceptable ranges.

On-site QC Testing Performed:

Bentonite Slurry:

|                          |                   |
|--------------------------|-------------------|
| Test                     | Time Conducted    |
| Viscosity-Initial        | 1100 & 1513       |
| Viscosity- In trench     | 0920, 1330 & 1434 |
| Density- Initial         | 1105 & 1516       |
| Density- In trench       | 0922, 1333 & 1436 |
| Filtrate Loss- Initial   | 1135 & 1546       |
| Filtrate Loss- In trench | 0954, 1404 & 1508 |
| pH- Initial              | 1108 & 1518       |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Soil-Bentonite Backfill:

|         |                    |
|---------|--------------------|
| Test    | Time Conducted     |
| Slump   | 0833, 1115, & 1530 |
| Density | 0840, 1150, & 1539 |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Samples collected of Soil-Bentonite Backfill for off-site analysis of Permeability, Gradation, and Materials Fines Content. AMEC started running Materials Fines Content in the field on backfill mix.

Backfill Slope soundings conducted at stations at the start and end of the work shift.  
 Current trench profile emailed under seperate cover to USACE representatives.

**Did anything develop that may lead to a Change Order/Claim ?**  
 No developments that may lead to a Change Oder during the day.

**Were there any Delays in Work Progress today?**

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                    | REPORT NUMBER<br>845                     | Page 2 of 3 |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|------------------------------------------|-------------|---------|--------------------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                    | DATE<br>22 Aug 2012 - Wednesday          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                    | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| <p>No delays in work progress encountered during the day.</p> <p><b>General Comments:</b><br/>         Work Completed During the Day:</p> <p>Sovereign: Provided project oversight and on-site QC of Moretrench and AMEC. Photographed progress of excavation and backfill mizing as trench advanced. Photo IDs: 082212-01 through 08212-07.</p> <p>AMEC: Provided oversight of on-site QC testing performed by Moretrench and trench exvcavation activities. Also made final determination of trench depths and if refusal criteria had been met at each 10 foot station. Started performing in field Materials Fine Content testing on backfill mix.</p> <p>Moretrench: Continued mixing slurry and filling tanks. Continued backfill mixing with excavator. Completed excavation of trench from 2+40 to 3+10. Backfilled trench with 2 1/2 batches of backfill (220 cy). Backfill complete at station 1+70. Backfill quanities summarized on Trench Profile submitted under seperate cover the USACE representatives. Performed all required on-site QC testing.</p> <p>Final Trench Depths at 10 foot stations during the day:</p> <table border="1"> <thead> <tr> <th>Station</th> <th>Final Trench Depth</th> </tr> </thead> <tbody> <tr><td>2+50</td><td>29.0'</td></tr> <tr><td>2+60</td><td>30.0'</td></tr> <tr><td>2+70</td><td>32.8'</td></tr> <tr><td>2+80</td><td>36.7'</td></tr> <tr><td>2+90</td><td>37.2'</td></tr> <tr><td>3+00</td><td>36.4*</td></tr> <tr><td>3+10</td><td>36.3*</td></tr> </tbody> </table> <p>* Depth reameasured and recorded at start of shift on 8-23-12.</p> <p>Materials Brought on Site:</p> <p>175 cys of Imported Clay Borrow for use in Backfill Mix brought on site during the day (W.J. Graves)</p> <p>Equipment Brought on Site:</p> <p>No additional equipment brought on-site during the day.</p> <p><b>Verbal Instructions given by Government:</b><br/>         No verbal instruction given by the government during the day.</p> <p><b>Safety Inspection / Safety Meetings:</b><br/>         Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviuewed prior to start of work activties.</p> <p><b>Safety: (Inspections made, Deficiencies noted):</b><br/>         Kane Turmellel (USACE Safety Specialist) on site during the morning to perform inspection.</p> <p>Mr. Turmellel recommended that the laborer mixing slurry wear hearing protection as he is working the vicinity of the main mixing pump ans noise levels in his work hear may be close to 85 db.</p> |                    |                                          |             | Station | Final Trench Depth | 2+50 | 29.0' | 2+60 | 30.0' | 2+70 | 32.8' | 2+80 | 36.7' | 2+90 | 37.2' | 3+00 | 36.4* | 3+10 | 36.3* |
| Station                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Final Trench Depth |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| 2+50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 29.0'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| 2+60                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 30.0'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| 2+70                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 32.8'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| 2+80                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 36.7'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| 2+90                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 37.2'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| 3+00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 36.4*              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| 3+10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 36.3*              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |
| Empty space for additional notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |       |      |       |

|                                                                                                                                                                                                                                                                                                                       |                           |                                                                     |                    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------------------------------------------|--------------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                   |                           | REPORT NUMBER<br>845 <span style="float: right;">Page 3 of 3</span> |                    |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                      |                           | DATE<br>22 Aug 2012 - Wednesday                                     |                    |
| CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                                                                                                                                                                                                                                              |                           |                                                                     |                    |
| <b>QC REQUIREMENTS</b><br>No QC requirements were completed today                                                                                                                                                                                                                                                     |                           |                                                                     |                    |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br>No QC Deficiency items were issued today<br>No Deficiency items were corrected today                                                                                                                    |                           |                                                                     |                    |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br>No contractors had their first or last day on site today                                                                                                                                                                        |                           |                                                                     |                    |
| <b>LABOR HOURS</b><br>The following labor hours were Reported today:                                                                                                                                                                                                                                                  |                           |                                                                     |                    |
| Employer                                                                                                                                                                                                                                                                                                              | Labor Classification      | Number of<br>Employees                                              | Hours<br>Worked    |
| Moretrech                                                                                                                                                                                                                                                                                                             | HEAVY-EQUIPMENT OPERATOR  | 4.0                                                                 | 40.5               |
| Moretrech                                                                                                                                                                                                                                                                                                             | LABORERS                  | 3.0                                                                 | 30.0               |
| Moretrech                                                                                                                                                                                                                                                                                                             | PROJECT ENGINEER          | 1.0                                                                 | 10.0               |
| Moretrech                                                                                                                                                                                                                                                                                                             | SUPER - CONSTRUCTION      | 1.0                                                                 | 10.0               |
| Sovereign                                                                                                                                                                                                                                                                                                             | PROJECT ENGINEER          | 1.0                                                                 | 10.0               |
| Sovereign                                                                                                                                                                                                                                                                                                             | SAFETY ENGINEER - ON SITE | 1.0                                                                 | 10.0               |
| Sovereign                                                                                                                                                                                                                                                                                                             | SUPER - JOB               | 1.0                                                                 | 10.0               |
| Total hours worked to date: 1,315.3                                                                                                                                                                                                                                                                                   |                           | Total                                                               | 120.5              |
| <b>EQUIPMENT HOURS</b><br>The following equipment hours were Reported today:                                                                                                                                                                                                                                          |                           |                                                                     |                    |
| Serial Number                                                                                                                                                                                                                                                                                                         | Description               | Idle<br>Hours                                                       | Operating<br>Hours |
| N/A                                                                                                                                                                                                                                                                                                                   | Bull Dozer                | 10.50                                                               | 0.00               |
| N/A                                                                                                                                                                                                                                                                                                                   | Exacavtor with Long Stick | 0.50                                                                | 10.00              |
| N/A                                                                                                                                                                                                                                                                                                                   | Loader                    | 6.00                                                                | 4.50               |
| N/A                                                                                                                                                                                                                                                                                                                   | Mixing Excavator          | 1.00                                                                | 9.50               |
| N/A                                                                                                                                                                                                                                                                                                                   | Mixing Loader             | 1.00                                                                | 9.50               |
| Total operating hours to date: 270.00                                                                                                                                                                                                                                                                                 |                           | Total                                                               | 33.50              |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br>No accidents reported today                                                                                                                                                                                                                                         |                           |                                                                     |                    |
|                                                                                                                                                                                                                                                                                                                       |                           |                                                                     |                    |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above. |                           |                                                                     |                    |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                         | DATE                      | SUPERINTENDENT'S INITIALS                                           | DATE               |

|                                                                                     |  |                                                                                                      |             |
|-------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |  | REPORT NUMBER<br>846                                                                                 | Page 1 of 3 |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |  | DATE<br>23 Aug 2012 - Thursday                                                                       |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             |  | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                             |             |
|                                                                                     |  | WEATHER<br>Weather Caused No Delay<br>Temperature Min 70 °F, Max 86 °F; No Precipitation; 5 MPH Wind |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench and AMEC. Provided on-site QC and documentation.  
 AMEC - Provided on-site engineering services and oversight of all field QC testing.  
 Moretrench - Excavation and Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
 Contruction of Working Platform

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Moretrench completed on-site QC testing of slurry being mixed in tanks prior to placement in trench along with on-site QC testing of slurry within the trench. Moretrech and AMEC also conducted on-site QC testing of backfill batches. Samples of backfill batches also collected for off-site QC testing. AMEC provided oversight of all Moretrench field QC testing to confirm testing was completed properly as per project specification and all results were within acceptable ranges.

On-site QC Testing Performed:

Bentonite Slurry:

|                          |                   |
|--------------------------|-------------------|
| Test                     | Time Conducted    |
| Viscosity-Initial        | 1004 & 1502       |
| Viscosity- In trench     | 0850, 1330 & 1434 |
| Density- Initial         | 1007 & 1504       |
| Density- In trench       | 0927, 1404 & 1436 |
| Filtrate Loss- Initial   | 1039 & 1546       |
| Filtrate Loss- In trench | 0927, 1404 & 1508 |
| pH- Initial              | 1011 & 1508       |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Soil-Bentonite Backfill:

|         |                    |
|---------|--------------------|
| Test    | Time Conducted     |
| Slump   | 0902, 1245, & 1545 |
| Density | 0912, 1300, & 1600 |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Samples collected of Soil-Bentonite Backfill for off-site analysis of Permeability, Gradation, and Materials Fines Content. AMEC completed field Materials Fines Content testing on backfill mix for batches 1 through 11. Results of Fine Content % ranged from 37% in Batch 4 to 52% in Batch 5. Average for all 11 batches was 45%.

Backfill Slope soundings conducted at stations at the start and end of the work shift.  
 Current trench profile emailed under seperate cover to USACE representatives.

**Did anything develop that may lead to a Change Order/Claim ?**  
 No developments that may lead to a Change Oder during the day.

**Were there any Delays in Work Progress today?**

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                    | REPORT NUMBER<br>846                     | Page 2 of 3 |         |                    |      |       |      |       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|------------------------------------------|-------------|---------|--------------------|------|-------|------|-------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                    | DATE<br>23 Aug 2012 - Thursday           |             |         |                    |      |       |      |       |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                    | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |         |                    |      |       |      |       |
| <p>No major delays in work progress during the day.<br/>         Moretrech only completed excavation from station 3+10 to 3+30 during the day as very dense material was encountered during the excavation at station 3+40.</p> <p><b>General Comments:</b><br/>         Work Completed During the Day:</p> <p>Sovereign: Provided project oversight and on-site QC of Moretrench and AMEC. Photographed progress of excavation and backfill mizing as trench advanced. Photo IDs: 082312-01 through 082312-10.</p> <p>AMEC: Provided oversight of on-site QC testing performed by Moretrench and trench exvcavation activities. Also made final determination of trench depths and if refusal criteria had been met at each 10 foot station. Performed in field Materials Fine Content testing on backfill mix.</p> <p>Moretrench: Continued mixing slurry and filling tanks. Continued backfill mixing with excavator. Completed excavation of trench from 3+10 to 3+30. Backfilled trench with 2 1/2 batches of backfill (220 cy). Backfill complete up to station 2+30. Backfill quanities summarized on Trench Profile submitted under seperate cover the USACE representatives. Performed all required on-site QC testing.</p> <p>General site clean-up at end of the shift.</p> <p>Final Trench Depths at 10 foot stations during the day:</p> <table border="1"> <thead> <tr> <th>Station</th> <th>Final Trench Depth</th> </tr> </thead> <tbody> <tr> <td>3+20</td> <td>34.5'</td> </tr> <tr> <td>3+30</td> <td>35.9'</td> </tr> </tbody> </table> <p>Materials Brought on Site:</p> <p>No additional equipment brought on-site during the day.</p> <p>Equipment Brought on Site:</p> <p>No additional equipment brought on-site during the day.</p> <p>Additional Notes:</p> <p>At 1645 a small section of the sidewall of the trench, between station 3+00 and 3+20 sloughed at the crest of the working platform. Long stick excavator was able to remove most of the sloughed material.</p> <p>At the end of the work shift a hose on the diesel powered slurry plant pump broke. The small amount of leaked diesel fuel was contained within the secondary containmnet area and clean with absorbent pads. Hose to be repaired first thing the following day.</p> <p><b>Verbal Instructions given by Government:</b><br/>         No verbal instruction given by the government during the day.</p> <p>Marcus Madison (USACE) on site during the late afternoon.</p> <p><b>Safety Inspection / Safety Meetings:</b><br/>         Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's viewed prior to start of work activties.</p> |                    |                                          |             | Station | Final Trench Depth | 3+20 | 34.5' | 3+30 | 35.9' |
| Station                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Final Trench Depth |                                          |             |         |                    |      |       |      |       |
| 3+20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 34.5'              |                                          |             |         |                    |      |       |      |       |
| 3+30                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 35.9'              |                                          |             |         |                    |      |       |      |       |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                    |                                          |             |         |                    |      |       |      |       |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                    |                                          |             |         |                    |      |       |      |       |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                    |                                          |             |         |                    |      |       |      |       |
| Empty space for additional notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                    |                                          |             |         |                    |      |       |      |       |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           | REPORT NUMBER<br>846                     |                           | Page 3 of 3 |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|------------------------------------------|---------------------------|-------------|---------------|----------------------|---------------------|-----------------|-----------|--------------------------|-------|------|-----------|---------------------------|------|-------|-----------|------------------|------|------|-----------|----------------------|------|------|-----------|------------------|------|------|---------------------------------------|-------------|-------|-------|-------------------------------------|--|-------|-------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           | DATE<br>23 Aug 2012 - Thursday           |                           |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |                           |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br>No QC Deficiency items were issued today<br>No Deficiency items were corrected today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           |                                          |                           |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br>No contractors had their first or last day on site today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           |                                          |                           |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |
| <b>LABOR HOURS</b><br>The following labor hours were Reported today: <table border="1"> <thead> <tr> <th>Employer</th> <th>Labor Classification</th> <th>Number of Employees</th> <th>Hours Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td>4.0</td> <td>40.5</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td>2.0</td> <td>20.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td>1.0</td> <td>10.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td>1.0</td> <td>10.0</td> </tr> <tr> <td>Sovereign</td> <td>PROJECT ENGINEER</td> <td>1.0</td> <td>10.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td>1.0</td> <td>10.0</td> </tr> <tr> <td colspan="2">Total hours worked to date: 1,415.8</td> <td>Total</td> <td>100.5</td> </tr> </tbody> </table> |                           |                                          |                           |             | Employer      | Labor Classification | Number of Employees | Hours Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 4.0   | 40.5 | Moretrech | LABORERS                  | 2.0  | 20.0  | Moretrech | PROJECT ENGINEER | 1.0  | 10.0 | Moretrech | SUPER - CONSTRUCTION | 1.0  | 10.0 | Sovereign | PROJECT ENGINEER | 1.0  | 10.0 | Sovereign                             | SUPER - JOB | 1.0   | 10.0  | Total hours worked to date: 1,415.8 |  | Total | 100.5 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Labor Classification      | Number of Employees                      | Hours Worked              |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | HEAVY-EQUIPMENT OPERATOR  | 4.0                                      | 40.5                      |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | LABORERS                  | 2.0                                      | 20.0                      |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | PROJECT ENGINEER          | 1.0                                      | 10.0                      |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | SUPER - CONSTRUCTION      | 1.0                                      | 10.0                      |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | PROJECT ENGINEER          | 1.0                                      | 10.0                      |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | SUPER - JOB               | 1.0                                      | 10.0                      |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |
| Total hours worked to date: 1,415.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           | Total                                    | 100.5                     |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |
| <b>EQUIPMENT HOURS</b><br>The following equipment hours were Reported today: <table border="1"> <thead> <tr> <th>Serial Number</th> <th>Description</th> <th>Idle Hours</th> <th>Operating Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td>10.50</td> <td>0.00</td> </tr> <tr> <td>N/A</td> <td>Exacavtor with Long Stick</td> <td>0.50</td> <td>10.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td>6.00</td> <td>4.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td>1.00</td> <td>9.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td>1.00</td> <td>9.50</td> </tr> <tr> <td colspan="2">Total operating hours to date: 303.50</td> <td>Total</td> <td>33.50</td> </tr> </tbody> </table>                                                                                                                    |                           |                                          |                           |             | Serial Number | Description          | Idle Hours          | Operating Hours | N/A       | Bull Dozer               | 10.50 | 0.00 | N/A       | Exacavtor with Long Stick | 0.50 | 10.00 | N/A       | Loader           | 6.00 | 4.50 | N/A       | Mixing Excavator     | 1.00 | 9.50 | N/A       | Mixing Loader    | 1.00 | 9.50 | Total operating hours to date: 303.50 |             | Total | 33.50 |                                     |  |       |       |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Description               | Idle Hours                               | Operating Hours           |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Bull Dozer                | 10.50                                    | 0.00                      |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Exacavtor with Long Stick | 0.50                                     | 10.00                     |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Loader                    | 6.00                                     | 4.50                      |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Mixing Excavator          | 1.00                                     | 9.50                      |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Mixing Loader             | 1.00                                     | 9.50                      |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |
| Total operating hours to date: 303.50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           | Total                                    | 33.50                     |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br>No accidents reported today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                           |                                          |                           |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           |                                          |                           |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           |                                          |                           |             |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                           | DATE                                     | SUPERINTENDENT'S INITIALS | DATE        |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |



|                                                                                     |  |                                                                                                      |             |
|-------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |  | REPORT NUMBER<br>847                                                                                 | Page 1 of 2 |
|                                                                                     |  | DATE<br>24 Aug 2012 - Friday                                                                         |             |
| PROJECT<br>Shepley's Landfill, Devens Cutoff Wall                                   |  | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                             |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             |  | WEATHER<br>Weather Caused No Delay<br>Temperature Min 70 °F, Max 86 °F; No Precipitation; 5 MPH Wind |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench and AMEC. Provided on-site QC and documentation.  
 AMEC - Provided on-site engineering services and oversight of all field QC testing.  
 Moretrench - Excavation and Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
 Contruction of Working Platform

**Quality Control Inspections and Activities (List by Feature of Work)**  
 No on-site QC tests performed during the day as trenching and slurry operations did not occur.

Backfill Slope soundings conducted at stations at the start of the shift.

**Did anything develop that may lead to a Change Order/Claim?**  
 No developments that may lead to a Change Oder during the day.

**Were there any Delays in Work Progress today?**  
 No major delays in work progress during the day.

**General Comments:**  
 Work Completed During the Day:

Sovereign: Provided project oversight and on-site QC of Moretrench and AMEC. Photographed progress of continuation of construction of the working platform. Photo IDs: 082412-01 through 082312-17.

AMEC: Completed soundings of trench at beginning of shift.

Moretrench: Constructed working platform from 4+50 to 6+25. Cleaned up mixing area and adjacent areas along the trench. General site clean-up at end of the shift.

Materials Brought on Site:

No additional equipment brought on-site during the day.

Equipment Brought on Site:

No additional equipment brought on-site during the day.

Additional Notes:

At the end of the work shift on 8-23-12 a hose on the diesel powered slurry plant pump broke. Hose was repaired first thing in the morning. Pump back in good working order.

**Verbal Instructions given by Government:**  
 Ellen Iorio and Zach Mothershed (USACE) on site during the late morning.

Ellen asked that the height of the berm in the area of the drainage swale be increased to ensure slurry mixed with temporarily stockpiled excavation cuttings did not impact the road.

This has been completed by Moretrench.

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           | REPORT NUMBER<br>847 <span style="float: right;">Page 2 of 2</span> |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------------------------------------------|--------------------|---------------|----------------------|------------------------|--------------------|-----------|--------------------------|------|------|-----------|---------------------------|------|------|-----------|------------------|------|------|-----------|----------------------|------|------|-----------|------------------|------|------|---------------------------------------|-------------|-------------|-------|-------------------------------------|--|------------|------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           | DATE<br>24 Aug 2012 - Friday                                        |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| <b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviued prior to start of work activties.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">4.0</td> <td style="text-align: right;">32.5</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">2.0</td> <td style="text-align: right;">16.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Sovereign</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">3.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total hours worked to date: 1,491.3</td> <td style="text-align: right; border-top: 1px solid black;">Total 10.0</td> <td style="text-align: right; border-top: 1px solid black;">75.5</td> </tr> </tbody> </table> |                           |                                                                     |                    | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 4.0  | 32.5 | Moretrech | LABORERS                  | 2.0  | 16.0 | Moretrech | PROJECT ENGINEER | 1.0  | 8.0  | Moretrech | SUPER - CONSTRUCTION | 1.0  | 8.0  | Sovereign | PROJECT ENGINEER | 1.0  | 3.0  | Sovereign                             | SUPER - JOB | 1.0         | 8.0   | Total hours worked to date: 1,491.3 |  | Total 10.0 | 75.5 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Labor Classification      | Number of<br>Employees                                              | Hours<br>Worked    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | HEAVY-EQUIPMENT OPERATOR  | 4.0                                                                 | 32.5               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | LABORERS                  | 2.0                                                                 | 16.0               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | PROJECT ENGINEER          | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | SUPER - CONSTRUCTION      | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | PROJECT ENGINEER          | 1.0                                                                 | 3.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | SUPER - JOB               | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| Total hours worked to date: 1,491.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           | Total 10.0                                                          | 75.5               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| <b>EQUIPMENT HOURS</b><br><b>The following equipment hours were Reported today:</b> <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle<br/>Hours</th> <th style="text-align: right;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">0.50</td> <td style="text-align: right;">8.00</td> </tr> <tr> <td>N/A</td> <td>Exacavtor with Long Stick</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">4.00</td> <td style="text-align: right;">4.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">7.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">7.50</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total operating hours to date: 331.00</td> <td style="text-align: right; border-top: 1px solid black;">Total 15.00</td> <td style="text-align: right; border-top: 1px solid black;">27.50</td> </tr> </tbody> </table>                                                                                                                                                                      |                           |                                                                     |                    | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A       | Bull Dozer               | 0.50 | 8.00 | N/A       | Exacavtor with Long Stick | 8.50 | 0.00 | N/A       | Loader           | 4.00 | 4.50 | N/A       | Mixing Excavator     | 1.00 | 7.50 | N/A       | Mixing Loader    | 1.00 | 7.50 | Total operating hours to date: 331.00 |             | Total 15.00 | 27.50 |                                     |  |            |      |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Description               | Idle<br>Hours                                                       | Operating<br>Hours |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Bull Dozer                | 0.50                                                                | 8.00               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Exacavtor with Long Stick | 8.50                                                                | 0.00               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Loader                    | 4.00                                                                | 4.50               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Mixing Excavator          | 1.00                                                                | 7.50               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Mixing Loader             | 1.00                                                                | 7.50               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| Total operating hours to date: 331.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           | Total 15.00                                                         | 27.50              |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| <b>CONTRACTOR CERTIFICATION</b> <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | DATE                      | SUPERINTENDENT'S INITIALS                                           | DATE               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |

|                                                                                     |  |                                                                                                       |             |
|-------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |  | REPORT NUMBER<br>850                                                                                  | Page 1 of 3 |
|                                                                                     |  | DATE<br>27 Aug 2012 - Monday                                                                          |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |  | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                              |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             |  | WEATHER<br>Weather Caused No Delay<br>Temperature Min 70 °F, Max 91 °F; No Precipitation; 10 MPH Wind |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench and AMEC. Provided on-site QC and documentation.  
 AMEC - Provided on-site engineering services and oversight of all field QC testing.  
 Moretrench - Excavation and Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
 Contruction of Working Platform

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Moretrench completed on-site QC testing of slurry being mixed in tanks prior to placement in trench along with on-site QC testing of slurry within the trench. Moretrech and AMEC also conducted on-site QC testing of backfill batches. Samples of backfill batches also collected for off-site QC testing. AMEC provided oversight of all Moretrench field QC testing to confirm testing was completed properly as per project specification and all results were within acceptable ranges.

On-site QC Testing Performed:

Bentonite Slurry:

|                          |                   |
|--------------------------|-------------------|
| Test                     | Time Conducted    |
| Viscosity-Initial        | 0850 & 1315       |
| Viscosity- In trench     | 1130, 1415 & 1510 |
| Density- Initial         | 0854 & 1316       |
| Density- In trench       | 1133, 1418 & 1515 |
| Filtrate Loss- Initial   | 0925 & 1347       |
| Filtrate Loss- In trench | 1204, 1449 & 1550 |
| pH- Initial              | 0900 & 1508       |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Soil-Bentonite Backfill:

|         |                     |
|---------|---------------------|
| Test    | Time Conducted      |
| Slump   | 1005, 1345, & 1550  |
| Density | 1020, 14000, & 1620 |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Samples collected of Soil-Bentonite Backfill for off-site analysis of Permeability, Gradation, and Materials Fines Content. AMEC completed field Materials Fines Content testing on backfill mix for batches 12 through 14. Results of Fine Content % ranged from 42% in Batch 13 to 44% in Batch 14. Average for all 3 batches was 43%.

Backfill Slope soundings conducted at stations at the start and end of the work shift.  
 Current trench profile emailed under seperate cover to USACE representatives.

**Did anything develop that may lead to a Change Order/Claim ?**  
 No developments that may lead to a Change Oder during the day.

**Were there any Delays in Work Progress today?**

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                    | REPORT NUMBER<br>850                     | Page 2 of 3 |         |                    |      |       |      |       |      |       |      |       |      |       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|------------------------------------------|-------------|---------|--------------------|------|-------|------|-------|------|-------|------|-------|------|-------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                    | DATE<br>27 Aug 2012 - Monday             |             |         |                    |      |       |      |       |      |       |      |       |      |       |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                    | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |         |                    |      |       |      |       |      |       |      |       |      |       |
| <p>No major delays in work progress during the day.</p> <p><b>General Comments:</b><br/> Work Completed During the Day:</p> <p>Sovereign: Provided project oversight and on-site QC of Moretrench and AMEC. Photographed progress of excavation and backfill mixing as trench advanced. Photo IDs: 082712-01 through 082712-08.</p> <p>AMEC: Provided oversight of on-site QC testing performed by Moretrench and trench exvcavation activities. Also made final determination of trench depths and if refusal criteria had been met at each 10 foot station. Performed in field Materials Fine Content testing on backfill mix.</p> <p>Moretrench: Continued mixing slurry and filling tanks. Continued backfill mixing with excavator. Completed excavation of trench from 3+30 to 3+80. Backfilled trench with 2 1/2 batches of backfill (220 cy). Backfill complete up to station 2+60. Backfill quantities summarized on Trench Profile submitted under seperate cover the USACE representatives. Performed all required on-site QC testing.</p> <p>General site clean-up at end of the shift.</p> <p>Final Trench Depths at 10 foot stations during the day:</p> <table border="1"> <thead> <tr> <th>Station</th> <th>Final Trench Depth</th> </tr> </thead> <tbody> <tr> <td>3+40</td> <td>40.1'</td> </tr> <tr> <td>3+50</td> <td>42.0'</td> </tr> <tr> <td>3+60</td> <td>42.0'</td> </tr> <tr> <td>3+70</td> <td>44.0'</td> </tr> <tr> <td>3+80</td> <td>43.5'</td> </tr> </tbody> </table> <p>Materials Brought on Site:</p> <p>75cys of Imported Clay Borrow for backfill mix (W.J. Graves)</p> <p>Equipment Brought on Site:</p> <p>No additional equipment brought on-site during the day.</p> <p>Additional Notes:</p> <p>It was observed that some sloughing had occured over the weekend between station 2+60 and 2+80. Slough did not fall into the trench. At was determined by AMEC and Moretrench it would create more problems if the excavator operator tried to move mats back up the trench to remove the slough as more material would get knocked into the trench.</p> <p><b>Verbal Instructions given by Government:</b><br/> No verbal instruction given by the government during the day.</p> <p>Zach Mothershed (USACE) on site during the morning.</p> <p>Marcus Madison (USACE) on site during the late afternoon.</p> <p><b>Safety Inspection / Safety Meetings:</b><br/> Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviued prior to start of work activties.</p> |                    |                                          |             | Station | Final Trench Depth | 3+40 | 40.1' | 3+50 | 42.0' | 3+60 | 42.0' | 3+70 | 44.0' | 3+80 | 43.5' |
| Station                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Final Trench Depth |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |
| 3+40                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 40.1'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |
| 3+50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 42.0'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |
| 3+60                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 42.0'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |
| 3+70                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 44.0'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |
| 3+80                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 43.5'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           | REPORT NUMBER<br>850 <span style="float: right;">Page 3 of 3</span> |                                   |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------------------------------------------|-----------------------------------|---------------|----------------------|---------------------|-----------------|-----------|--------------------------|-------|------|-----------|---------------------------|------|-------|-----------|------------------|------|------|-----------|----------------------|------|------|-----------|------------------|------|------|---------------------------------------|-------------|-------------|-------|-------------------------------------|--|------------|-------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           | DATE<br>27 Aug 2012 - Monday                                        |                                   |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                            |                                   |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br>No QC Deficiency items were issued today<br>No Deficiency items were corrected today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           |                                                                     |                                   |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br>No contractors had their first or last day on site today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           |                                                                     |                                   |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>LABOR HOURS</b><br>The following labor hours were Reported today: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of Employees</th> <th style="text-align: right;">Hours Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">4.0</td> <td style="text-align: right;">40.5</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">2.0</td> <td style="text-align: right;">20.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td>Sovereign</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td colspan="2">Total hours worked to date: 1,591.8</td> <td style="text-align: right;">Total 10.0</td> <td style="text-align: right;">100.5</td> </tr> </tbody> </table> |                           |                                                                     |                                   | Employer      | Labor Classification | Number of Employees | Hours Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 4.0   | 40.5 | Moretrech | LABORERS                  | 2.0  | 20.0  | Moretrech | PROJECT ENGINEER | 1.0  | 10.0 | Moretrech | SUPER - CONSTRUCTION | 1.0  | 10.0 | Sovereign | PROJECT ENGINEER | 1.0  | 10.0 | Sovereign                             | SUPER - JOB | 1.0         | 10.0  | Total hours worked to date: 1,591.8 |  | Total 10.0 | 100.5 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Labor Classification      | Number of Employees                                                 | Hours Worked                      |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | HEAVY-EQUIPMENT OPERATOR  | 4.0                                                                 | 40.5                              |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | LABORERS                  | 2.0                                                                 | 20.0                              |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | PROJECT ENGINEER          | 1.0                                                                 | 10.0                              |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | SUPER - CONSTRUCTION      | 1.0                                                                 | 10.0                              |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | PROJECT ENGINEER          | 1.0                                                                 | 10.0                              |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | SUPER - JOB               | 1.0                                                                 | 10.0                              |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Total hours worked to date: 1,591.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           | Total 10.0                                                          | 100.5                             |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>EQUIPMENT HOURS</b><br>The following equipment hours were Reported today: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle Hours</th> <th style="text-align: right;">Operating Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">10.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Exacavtor with Long Stick</td> <td style="text-align: right;">0.50</td> <td style="text-align: right;">10.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">6.00</td> <td style="text-align: right;">4.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">9.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">9.50</td> </tr> <tr> <td colspan="2">Total operating hours to date: 364.50</td> <td style="text-align: right;">Total 19.00</td> <td style="text-align: right;">33.50</td> </tr> </tbody> </table>                                                                                                                                                                         |                           |                                                                     |                                   | Serial Number | Description          | Idle Hours          | Operating Hours | N/A       | Bull Dozer               | 10.50 | 0.00 | N/A       | Exacavtor with Long Stick | 0.50 | 10.00 | N/A       | Loader           | 6.00 | 4.50 | N/A       | Mixing Excavator     | 1.00 | 9.50 | N/A       | Mixing Loader    | 1.00 | 9.50 | Total operating hours to date: 364.50 |             | Total 19.00 | 33.50 |                                     |  |            |       |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Description               | Idle Hours                                                          | Operating Hours                   |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Bull Dozer                | 10.50                                                               | 0.00                              |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Exacavtor with Long Stick | 0.50                                                                | 10.00                             |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Loader                    | 6.00                                                                | 4.50                              |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Mixing Excavator          | 1.00                                                                | 9.50                              |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Mixing Loader             | 1.00                                                                | 9.50                              |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Total operating hours to date: 364.50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           | Total 19.00                                                         | 33.50                             |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br>No accidents reported today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                           |                                                                     |                                   |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           |                                                                     |                                   |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           |                                                                     |                                   |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                           | DATE                                                                | SUPERINTENDENT'S INITIALS<br>DATE |               |                      |                     |                 |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |

|                                                                                     |                                                                                                         |                                          |             |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |                                                                                                         | REPORT NUMBER<br>851                     | Page 1 of 3 |
|                                                                                     |                                                                                                         | DATE<br>28 Aug 2012 - Tuesday            |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |                                                                                                         | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             | WEATHER<br>Weather Caused No Delay<br>Temperature Min 0 °F, Max 0 °F; 0.25 IN Precipitation; 5 MPH Wind |                                          |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench and AMEC. Provided on-site QC and documentation.  
 AMEC - Provided on-site engineering services and oversight of all field QC testing.  
 Moretrench - Excavation and Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
 Contruction of Working Platform

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Follow-up inspection held for DFW: Soil-Bentonite Wall Construction

All imported borrow material used for backfill mix was visually inspected upon arrival.

Moretrench completed on-site QC testing of slurry being mixed in tanks prior to placement in trench along with on-site QC testing of slurry within the trench. Moretrech and AMEC also conducted on-site QC testing of backfill batches. Samples of backfill batches also collected for off-site QC testing. AMEC provided oversight of all Moretrench field QC testing to confirm testing was completed properly as per project specification and all results were within acceptable ranges. As excavation activties were only conducted for half the work only half the amount of required field QC for a full work shift was completed during the day.

On-site QC Testing Performed:

Bentonite Slurry:

| Test                     | Time Conducted |
|--------------------------|----------------|
| Viscosity-Initial        | 1250           |
| Viscosity- In trench     | 1420 &1535     |
| Density- Initial         | 1255           |
| Density- In trench       | 1423 &1538     |
| Filtrate Loss- Initial   | 1326           |
| Filtrate Loss- In trench | 1455 & 1610    |
| pH- Initial              | 1258           |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Soil-Bentonite Backfill:

| Test    | Time Conducted |
|---------|----------------|
| Slump   | 1045 & 1545    |
| Density | 1100 & 1600    |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Samples collected of Soil-Bentonite Backfill for off-site analysis of Permeability, Gradation, and Materials Fines Content. AMEC completed field Materials Fines Content testing on backfill mix for batch 15. Results of Fine Content % from Batch 15 was 52%..

Backfill Slope soundings conducted at stations at the start and end of the work shift. Current trench profile emailed under seperate cover to USACE representatives.

**Did anything develop that may lead to a Change Order/Claim ?**

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                    | REPORT NUMBER<br>851                     | Page 2 of 3 |         |                    |      |       |      |       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|------------------------------------------|-------------|---------|--------------------|------|-------|------|-------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                    | DATE<br>28 Aug 2012 - Tuesday            |             |         |                    |      |       |      |       |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |         |                    |      |       |      |       |
| <p>No developments that may lead to a Change Oder during the day.</p> <p><b>Were there any Delays in Work Progress today?</b><br/>         No major delays in work progress during the day.</p> <p><b>General Comments:</b><br/>         Work Completed During the Day:</p> <p>Sovereign: Provided project oversight and on-site QC of Moretrench and AMEC. Photographed progress of excavation and backfill mixing as trench advanced. Photo IDs: 082812-01 through 082728-16.</p> <p>AMEC: Provided oversight of on-site QC testing performed by Moretrench and trench exvcavation activities. Also made final determination of trench depths and if refusal criteria had been met at each 10 foot station. Performed in field Materials Fine Content testing on backfill mix.</p> <p>Moretrench: Continued mixing slurry and filling tanks. Continued backfill mixing with excavator. Excavation activites only conducted during second half of the work shift. During the first half of the work shift Moretrench worked on cutting out of the bank to the east of the barrier wall alignment from approximately station 7+00 to 8+50 to allow room more the excvator and crane mats. Berm comprised of all sand with a 6 inch to 1 foot layer of topsoil and vegetation. Completed excavation of trench from 3+80 to 4+00. Backfilled trench with 1 1/2 batches of backfill. Backfill complete up to station 2+80. Backfill quantities summarized on Trench Profile submitted under seperate cover the USACE representatives. Performed all required on-site QC testing.<br/>         General site clean-up at end of the shift.</p> <p>Final Trench Depths at 10 foot stations during the day:</p> <table border="1"> <thead> <tr> <th>Station</th> <th>Final Trench Depth</th> </tr> </thead> <tbody> <tr> <td>3+90</td> <td>45.0'</td> </tr> <tr> <td>4+00</td> <td>44.1'</td> </tr> </tbody> </table> <p>Materials Brought on Site:</p> <p>250 cys of Imported Clay Borrow for backfill mix (W.J. Graves)</p> <p>Equipment Brought on Site:</p> <p>No additional equipment brought on-site during the day.</p> <p>Additional Notes:</p> <p>During monring trench soundings it was observed that the sounding at station 3+20 was approximately 2 feet shallower than the end of the day sound on 8-27-10 at the same station. However, stations 3+00 and 3+10 were measured 1 to 2 feet deeper. It is probable that backfill slid from stations 3+00 and 3+10 and settled at station 3+20 overnight. There was no evidence of slough or cave in at these stations.</p> <p>Landfill liner was encountered at approximately station 4+15 at a depth of approximately 2 feet below exsisting grade and has continued as excavation activites proceed down the alignment.</p> <p><b>Verbal Instructions given by Government:</b><br/>         No verbal instruction given by the government during the day.</p> <p>Zach Mothershed (USACE Project Engineer) and John Kollberg (USACE Geo-tech Eng.) on site during the afternoon.</p> <p><b>Safety Inspection / Safety Meetings:</b><br/>         Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviuewed prior to start of work activties.</p> |                    |                                          |             | Station | Final Trench Depth | 3+90 | 45.0' | 4+00 | 44.1' |
| Station                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Final Trench Depth |                                          |             |         |                    |      |       |      |       |
| 3+90                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 45.0'              |                                          |             |         |                    |      |       |      |       |
| 4+00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 44.1'              |                                          |             |         |                    |      |       |      |       |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                    |                                          |             |         |                    |      |       |      |       |
| Empty space for additional notes or comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |                                          |             |         |                    |      |       |      |       |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           | REPORT NUMBER<br>851 <span style="float: right;">Page 3 of 3</span> |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------------------------------------------|--------------------|---------------|----------------------|------------------------|--------------------|-----------|--------------------------|-------|------|-----------|---------------------------|------|------|-----------|------------------|------|------|-----------|----------------------|------|------|-----------|------------------|------|------|---------------------------------------|-------------|-------------|-------|-------------------------------------|--|------------|-------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                           | DATE<br>28 Aug 2012 - Tuesday                                       |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>ACTIVITY START/FINISH</b><br>No activities were started or finished today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>QC REQUIREMENTS</b><br>No QC requirements were completed today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br>No QC Deficiency items were issued today<br>No Deficiency items were corrected today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br>No contractors had their first or last day on site today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>LABOR HOURS</b><br>The following labor hours were Reported today: <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">4.0</td> <td style="text-align: right;">40.5</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">2.0</td> <td style="text-align: right;">20.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td>Sovereign</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total hours worked to date: 1,692.3</td> <td style="text-align: right; border-top: 1px solid black;">Total 10.0</td> <td style="text-align: right; border-top: 1px solid black;">100.5</td> </tr> </tbody> </table> |                           |                                                                     |                    | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 4.0   | 40.5 | Moretrech | LABORERS                  | 2.0  | 20.0 | Moretrech | PROJECT ENGINEER | 1.0  | 10.0 | Moretrech | SUPER - CONSTRUCTION | 1.0  | 10.0 | Sovereign | PROJECT ENGINEER | 1.0  | 10.0 | Sovereign                             | SUPER - JOB | 1.0         | 10.0  | Total hours worked to date: 1,692.3 |  | Total 10.0 | 100.5 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Labor Classification      | Number of<br>Employees                                              | Hours<br>Worked    |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | HEAVY-EQUIPMENT OPERATOR  | 4.0                                                                 | 40.5               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | LABORERS                  | 2.0                                                                 | 20.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | PROJECT ENGINEER          | 1.0                                                                 | 10.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | SUPER - CONSTRUCTION      | 1.0                                                                 | 10.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | PROJECT ENGINEER          | 1.0                                                                 | 10.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | SUPER - JOB               | 1.0                                                                 | 10.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Total hours worked to date: 1,692.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           | Total 10.0                                                          | 100.5              |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>EQUIPMENT HOURS</b><br>The following equipment hours were Reported today: <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle<br/>Hours</th> <th style="text-align: right;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">10.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Exacavtor with Long Stick</td> <td style="text-align: right;">5.50</td> <td style="text-align: right;">5.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">6.00</td> <td style="text-align: right;">4.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">9.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">9.50</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total operating hours to date: 393.00</td> <td style="text-align: right; border-top: 1px solid black;">Total 24.00</td> <td style="text-align: right; border-top: 1px solid black;">28.50</td> </tr> </tbody> </table>                                                                                                                                                                          |                           |                                                                     |                    | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A       | Bull Dozer               | 10.50 | 0.00 | N/A       | Exacavtor with Long Stick | 5.50 | 5.00 | N/A       | Loader           | 6.00 | 4.50 | N/A       | Mixing Excavator     | 1.00 | 9.50 | N/A       | Mixing Loader    | 1.00 | 9.50 | Total operating hours to date: 393.00 |             | Total 24.00 | 28.50 |                                     |  |            |       |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Description               | Idle<br>Hours                                                       | Operating<br>Hours |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Bull Dozer                | 10.50                                                               | 0.00               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Exacavtor with Long Stick | 5.50                                                                | 5.00               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Loader                    | 6.00                                                                | 4.50               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Mixing Excavator          | 1.00                                                                | 9.50               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Mixing Loader             | 1.00                                                                | 9.50               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Total operating hours to date: 393.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           | Total 24.00                                                         | 28.50              |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br>No accidents reported today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | DATE                      | SUPERINTENDENT'S INITIALS                                           | DATE               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |



|                                                                                     |  |                                                                                                     |             |
|-------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |  | REPORT NUMBER<br>852                                                                                | Page 1 of 4 |
|                                                                                     |  | DATE<br>29 Aug 2012 - Wednesday                                                                     |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |  | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                            |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             |  | WEATHER<br>Weather Caused No Delay<br>Temperature Min 0 °F, Max 0 °F; No Precipitation; 10 MPH Wind |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench and AMEC. Provided on-site QC and documentation.  
 AMEC - Provided on-site engineering services and oversight of all field QC testing.  
 Moretrench - Excavation and Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
 Contruction of Working Platform

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Initial Inspection for DFW: Stockpiling of Soil Materails held during the day.

All imported clay borrow used for backfill mix inspected upon deliveries.

Moretrench completed on-site QC testing of slurry being mixed in tanks prior to placement in trench along with on-site QC testing of slurry within the trench. Moretrech and AMEC also conducted on-site QC testing of backfill batches. Samples of backfill batches also collected for off-site QC testing. AMEC provided oversight of all Moretrench field QC testing to confirm testing was completed properly as per project specification and all results were within acceptable ranges.

On-site QC Testing Performed:

Bentonite Slurry:

|                          |                   |
|--------------------------|-------------------|
| Test                     | Time Conducted    |
| Viscosity-Initial        | 0830 & 1450       |
| Viscosity- In trench     | 0910, 1030 & 1530 |
| Density- Initial         | 0832 & 1453       |
| Density- In trench       | 0915, 1034 & 1533 |
| Filtrate Loss- Initial   | 0905 & 1525       |
| Filtrate Loss- In trench | 0950, 1105 & 1604 |
| pH- Initial              | 0840 & 1456       |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Soil-Bentonite Backfill:

|         |                |
|---------|----------------|
| Test    | Time Conducted |
| Slump   | 1115 & 1438    |
| Density | 1134 & 1500    |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Samples collected of Soil-Bentonite Backfill for off-site analysis of Permeability, Gradation, and Materials Fines Content. AMEC completed field Materials Fines Content testing on backfill mix for batch 16. Results of Fine Content % in Batch 16 was 41%.

Backfill Slope soundings conducted at stations at the start and end of the work shift. Current trench profile emailed under seperate cover to USACE representatives.

**Did anything develop that may lead to a Change Order/Claim ?**

**CONTRACTORS QUALITY CONTROL REPORT (QCR)**  
**DAILY LOG OF CONSTRUCTION**

REPORT NUMBER  
852 Page 2 of 4

DATE  
29 Aug 2012 - Wednesday

PROJECT  
Shepley's Landfil, Devens Cutoff Wall

CONTRACT NUMBER  
W912WJ-10-D-0003 0002

No developments that may lead to a Change Oder during the day.

**Were there any Delays in Work Progress today?**

No major delays in work progress during the day.

**General Comments:**

Work Completed During the Day:

Sovereign: Provided project oversight and on-site QC of Moretrench and AMEC. Photographed progress of excavation and backfill mixing as trench advanced. Photo IDs: 082912-01 through 082912-07.

AMEC: Geotechnical Engineer and Principi Geotechnical Engineer provided oversight of on-site QC testing performed by Moretrench and trench exvavation activities. Due to high degree of concern of ensuring contact with compontent bedrock at station 4+00 and 5+00 AMEC Principi Geotechnical Engineer made all final determination of trench depths and if refusal criteria had been met at each 10 foot station. Performed in field Materials Fine Content testing on backfill mix.

Moretrench: Continued mixing slurry and filling tanks. Cleaned-up working platform from station 5+00 to station 6+00. Continued backfill mixing with excavator. Completed excavation of trench from 4+00 to 4+50. Backfilled trench with 1 1/2 batches of backfill. Backfill complete up to station 3+10. Backfill quantities summarized on Trench Profile submitted under seperate cover the USACE representatives. Performed all required on-site QC testing.  
General site clean-up at end of the shift.

Final Trench Depths at 10 foot stations during the day:

| Station | Final Trench Depth |
|---------|--------------------|
| 4+10    | 42.8'              |
| 4+20    | 42.1'              |
| 4+30    | 41.2'              |
| 4+40    | 40.0'              |

Materials Brought on Site:

50 cys of Imported Clay Borrow for backfill mix (W.J. Graves)

Equipment Brought on Site:

No additional equipment brought on-site during the day.

Additional Notes:

A lengthy discussion was held between Sovereign, AMEC and the USACE (Ellen Iorio) about the refusal depth of station 4+50 due to bedrock being found at shallower depth than anticipated. Borings logs and working platform elevations were reviewed in detail. It was concured that the area of weathered bedrock shown on the specification drawings was an interpatation from two boring logs in the vicinity of of station 4+50. Boring SHL 11-02 had shown evidence of weathered bedrock which has and approximate off-set of 20 feet. Boring SHL 12-06 which was approximately on the proposed alignment of the trench showed no weathered bedrock and a depth of 42 feet. Moretrench was not able to excavated deeper than 39.4 feet at station 4+50. This was after two and half hrs of working on the station from both ways of the cross at the vertex of the trench. It was agreeded that Moretrench will try to excavate a little more in the area the morning of the following day and if no progress in a downward trend was shown then it would be determined that refusal had been met.

Representatives of MassDEP and US EPA on-site throughout the day. All regulators were given periodic updates on the status of work.

**Verbal Instructions given by Government:**

Numerous USACE representatives on site through-out the day.

Zach Mothershed (USACE)  
Marcus Madison (USACE)  
Ellen Iorio (USACE)  
Jim Morrocco (USACE)

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           | REPORT NUMBER<br>852 <span style="float: right;">Page 3 of 4</span> |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |             |       |           |                           |     |      |           |             |     |      |                                     |  |            |       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------------------------------------------|--------------------|---------------|----------------------|------------------------|--------------------|-----------|--------------------------|-------|------|-----------|---------------------------|------|-------|-----------|------------------|------|------|-----------|----------------------|------|------|-----------|------------------|------|------|---------------------------------------|-----------------|-------------|-------|-----------|---------------------------|-----|------|-----------|-------------|-----|------|-------------------------------------|--|------------|-------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                           | DATE<br>29 Aug 2012 - Wednesday                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |             |       |           |                           |     |      |           |             |     |      |                                     |  |            |       |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                            |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |             |       |           |                           |     |      |           |             |     |      |                                     |  |            |       |
| <p>No verbal instruction given by the government during the day except for process of determination of refusal at station 4+50 described in General Comment section of the QC Narrative.</p> <p><b>Safety Inspection / Safety Meetings:</b><br/>         Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviuewed prior to start of work activties.</p> <p>Due to the high number of visitors to the site during the day caution tape was strung of the tented site sign-in area along the west side of the haul road to approximately station 6+50. All visitors were checked-in, given a safety briefing on all the hazards of the site and escorted on the inside of the caution tape to the viewing area marked with cones, barricones, and flags.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |             |       |           |                           |     |      |           |             |     |      |                                     |  |            |       |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory inspections were held today</b><br><b>An initial inspection was held today for the following feature:</b><br>Stockpiling of Soil Materials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |             |       |           |                           |     |      |           |             |     |      |                                     |  |            |       |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |             |       |           |                           |     |      |           |             |     |      |                                     |  |            |       |
| <b>QC REQUIREMENTS</b><br><b>No QC requiremements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |             |       |           |                           |     |      |           |             |     |      |                                     |  |            |       |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |             |       |           |                           |     |      |           |             |     |      |                                     |  |            |       |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |             |       |           |                           |     |      |           |             |     |      |                                     |  |            |       |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table border="0" style="width: 100%;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">4.0</td> <td style="text-align: right;">40.5</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">2.0</td> <td style="text-align: right;">20.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td>Sovereign</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">2.0</td> <td style="text-align: right;">20.0</td> </tr> <tr> <td>Sovereign</td> <td>PROJECT MANAGER</td> <td style="text-align: right;">3.0</td> <td style="text-align: right;">15.0</td> </tr> <tr> <td>Sovereign</td> <td>SAFETY ENGINEER - ON SITE</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td colspan="2">Total hours worked to date: 1,827.8</td> <td style="text-align: right;">Total 15.0</td> <td style="text-align: right;">135.5</td> </tr> </tbody> </table> |                           |                                                                     |                    | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 4.0   | 40.5 | Moretrech | LABORERS                  | 2.0  | 20.0  | Moretrech | PROJECT ENGINEER | 1.0  | 10.0 | Moretrech | SUPER - CONSTRUCTION | 1.0  | 10.0 | Sovereign | PROJECT ENGINEER | 2.0  | 20.0 | Sovereign                             | PROJECT MANAGER | 3.0         | 15.0  | Sovereign | SAFETY ENGINEER - ON SITE | 1.0 | 10.0 | Sovereign | SUPER - JOB | 1.0 | 10.0 | Total hours worked to date: 1,827.8 |  | Total 15.0 | 135.5 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Labor Classification      | Number of<br>Employees                                              | Hours<br>Worked    |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |             |       |           |                           |     |      |           |             |     |      |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | HEAVY-EQUIPMENT OPERATOR  | 4.0                                                                 | 40.5               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |             |       |           |                           |     |      |           |             |     |      |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | LABORERS                  | 2.0                                                                 | 20.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |             |       |           |                           |     |      |           |             |     |      |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | PROJECT ENGINEER          | 1.0                                                                 | 10.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |             |       |           |                           |     |      |           |             |     |      |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | SUPER - CONSTRUCTION      | 1.0                                                                 | 10.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |             |       |           |                           |     |      |           |             |     |      |                                     |  |            |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | PROJECT ENGINEER          | 2.0                                                                 | 20.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |             |       |           |                           |     |      |           |             |     |      |                                     |  |            |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | PROJECT MANAGER           | 3.0                                                                 | 15.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |             |       |           |                           |     |      |           |             |     |      |                                     |  |            |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | SAFETY ENGINEER - ON SITE | 1.0                                                                 | 10.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |             |       |           |                           |     |      |           |             |     |      |                                     |  |            |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | SUPER - JOB               | 1.0                                                                 | 10.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |             |       |           |                           |     |      |           |             |     |      |                                     |  |            |       |
| Total hours worked to date: 1,827.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           | Total 15.0                                                          | 135.5              |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |             |       |           |                           |     |      |           |             |     |      |                                     |  |            |       |
| <b>EQUIPMENT HOURS</b><br><b>The following equipment hours were Reported today:</b> <table border="0" style="width: 100%;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle<br/>Hours</th> <th style="text-align: right;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">10.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Exacavtor with Long Stick</td> <td style="text-align: right;">0.50</td> <td style="text-align: right;">10.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">6.00</td> <td style="text-align: right;">4.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">9.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">9.50</td> </tr> <tr> <td colspan="2">Total operating hours to date: 426.50</td> <td style="text-align: right;">Total 19.00</td> <td style="text-align: right;">33.50</td> </tr> </tbody> </table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           |                                                                     |                    | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A       | Bull Dozer               | 10.50 | 0.00 | N/A       | Exacavtor with Long Stick | 0.50 | 10.00 | N/A       | Loader           | 6.00 | 4.50 | N/A       | Mixing Excavator     | 1.00 | 9.50 | N/A       | Mixing Loader    | 1.00 | 9.50 | Total operating hours to date: 426.50 |                 | Total 19.00 | 33.50 |           |                           |     |      |           |             |     |      |                                     |  |            |       |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Description               | Idle<br>Hours                                                       | Operating<br>Hours |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |             |       |           |                           |     |      |           |             |     |      |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Bull Dozer                | 10.50                                                               | 0.00               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |             |       |           |                           |     |      |           |             |     |      |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Exacavtor with Long Stick | 0.50                                                                | 10.00              |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |             |       |           |                           |     |      |           |             |     |      |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Loader                    | 6.00                                                                | 4.50               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |             |       |           |                           |     |      |           |             |     |      |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Mixing Excavator          | 1.00                                                                | 9.50               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |             |       |           |                           |     |      |           |             |     |      |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Mixing Loader             | 1.00                                                                | 9.50               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |             |       |           |                           |     |      |           |             |     |      |                                     |  |            |       |
| Total operating hours to date: 426.50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           | Total 19.00                                                         | 33.50              |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |             |       |           |                           |     |      |           |             |     |      |                                     |  |            |       |

|                                                                                                                                                                                                                                                                                                                       |  |                                          |                           |             |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------|---------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                   |  | REPORT NUMBER<br>852                     |                           | Page 4 of 4 |
|                                                                                                                                                                                                                                                                                                                       |  | DATE<br>29 Aug 2012 - Wednesday          |                           |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                      |  | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |                           |             |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                  |  |                                          |                           |             |
|                                                                                                                                                                                                                                                                                                                       |  |                                          |                           |             |
| CONTRACTOR CERTIFICATION <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b> |  |                                          |                           |             |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                         |  | DATE                                     | SUPERINTENDENT'S INITIALS | DATE        |

|                                                                                     |  |                                                                                                       |             |
|-------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |  | REPORT NUMBER<br>853                                                                                  | Page 1 of 3 |
|                                                                                     |  | DATE<br>30 Aug 2012 - Thursday                                                                        |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |  | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                              |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             |  | WEATHER<br>Weather Caused No Delay<br>Temperature Min 70 °F, Max 86 °F; No Precipitation; 15 MPH Wind |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench and AMEC. Provided on-site QC and documentation.  
 AMEC - Provided on-site engineering services and oversight of all field QC testing.  
 Moretrench - Excavation and Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
 Contruction of Working Platform

**Quality Control Inspections and Activities (List by Feature of Work)**  
 All imported borrow for backfill mix inspected upon delivery.

Moretrench completed on-site QC testing of slurry being mixed in tanks prior to placement in trench along with on-site QC testing of slurry within the trench. Moretrech and AMEC also conducted on-site QC testing of backfill batches. Samples of backfill batches also collected for off-site QC testing. AMEC provided oversight of all Moretrench field QC testing to confirm testing was completed properly as per project specification and all results were within acceptable ranges.

Bentonite Slurry:

|                          |                   |
|--------------------------|-------------------|
| Test                     | Time Conducted    |
| Viscosity-Initial        | 0815 & 1400       |
| Viscosity- In trench     | 1020, 1115 & 1316 |
| Density- Initial         | 0810 & 1403       |
| Density- In trench       | 1025, 1119 & 1320 |
| Filtrate Loss- Initial   | 0849 & 1435       |
| Filtrate Loss- In trench | 1057, 1151 & 1352 |
| pH- Initial              | 0821 & 1406       |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Soil-Bentonite Backfill:

|         |                |
|---------|----------------|
| Test    | Time Conducted |
| Slump   | 1030 & 1545    |
| Density | 1046 & 1600    |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Samples collected of Soil-Bentonite Backfill for off-site analysis of Permeability, Gradation, and Materials Fines Content.

Backfill Slope soundings conducted at stations at the start and end of the work shift.  
 Current trench profile emailed under seperate cover to USACE representatives.

**Did anything develop that may lead to a Change Order/Claim?**  
 No developments that may lead to a Change Oder during the day.

**Were there any Delays in Work Progress today?**  
 No major delays in work progress during the day.

**CONTRACTORS QUALITY CONTROL REPORT (QCR)**  
**DAILY LOG OF CONSTRUCTION**

REPORT NUMBER  
853 Page 2 of 3

DATE  
30 Aug 2012 - Thursday

PROJECT  
Shepley's Landfil, Devens Cutoff Wall

CONTRACT NUMBER  
W912WJ-10-D-0003 0002

**General Comments:**

Work Completed During the Day:

Sovereign: Provided project oversight and on-site QC of Moretrench and AMEC. Photographed progress of excavation and backfill mixing as trench advanced. Photo IDs: 083012-01 through 083012-18.

AMEC: Geotechnical Engineer and Principi Geotechnical Engineer provided oversight of on-site QC testing performed by Moretrench and trench exvavation activities. Due to high degree of concern of ensuring contact with compontent bedrock at station 4+00 and 5+00 AMEC Principi Geotechnical Engineer made all final determination of trench depths and if refusal criteria had been met at each 10 foot station.

Moretrench: Continued mixing slurry and filling tanks. Continued backfill mixing with excavator. Completed excavation of trench from 4+50 to 5+20. Backfilled trench with 1 1/2 batches of backfill. Backfill complete up to station 3+80. Backfill quanities summarized on Trench Profile submitted under seperate cover the USACE representatives. Performed all required on-site QC testing.  
General site clean-up at end of the shift.

Final Trench Depths at 10 foot stations during the day:

| Station | Final Trench Depth |
|---------|--------------------|
| 4+50    | 39.4'              |
| 4+60    | 37.7'              |
| 4+70    | 36.6'              |
| 4+80    | 34.7'              |
| 4+90    | 35.0'              |
| 5+00    | 39.1'              |
| 5+10    | 39.9'              |
| 5+20    | 39.5'              |

Materials Brought on Site:

50 cys of Imported Clay Borrow for backfill mix (W.J. Graves)

Equipment Brought on Site:

No additional equipment brought on-site during the day.

Additional Notes:

Sovereign and AMEC verified the elevation of the working platform using a survey level. Based on the survey results, the verified elevation of the working platform at station 4+50 was within 0.1' of the measured elevation. This check was performed because of the discrepancy between the anticipated depth to competent rock and final trench depth.

Representatives of MassDEP and US EPA on-site throughout the day. All regulators were given periodic updates on the status of work.

**Verbal Instructions given by Government:**

Numerous USACE representatives on site through-out the day.

Zach Mothershed (USACE)  
Marcus Madison (USACE)  
Ellen Iorio (USACE)

No verbal instruction given by the government during the day.

**Safety Inspection / Safety Meetings:**

Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviewed prior to start of work activties.

Due to the high number of visitors to the site during the day caution tape was strung of the tented site sign-in area along the west side of the haul road to approximately station 8+50. All visitors were checked-in, given a safety briefing on all the hazards of the site and escorted on the inside of the caution tape to the viewing area marked with cones, barricones, and flags.

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           | REPORT NUMBER<br>853 <span style="float: right;">Page 3 of 3</span> |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |             |       |           |                           |     |     |           |             |     |      |                                     |  |            |       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------------------------------------------|--------------------|---------------|----------------------|------------------------|--------------------|-----------|--------------------------|-------|------|-----------|---------------------------|------|-------|-----------|------------------|------|------|-----------|----------------------|------|------|-----------|------------------|------|------|---------------------------------------|-----------------|-------------|-------|-----------|---------------------------|-----|-----|-----------|-------------|-----|------|-------------------------------------|--|------------|-------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           | DATE<br>30 Aug 2012 - Thursday                                      |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |             |       |           |                           |     |     |           |             |     |      |                                     |  |            |       |
| PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |             |       |           |                           |     |     |           |             |     |      |                                     |  |            |       |
| ACTIVITY START/FINISH<br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |             |       |           |                           |     |     |           |             |     |      |                                     |  |            |       |
| QC REQUIREMENTS<br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |             |       |           |                           |     |     |           |             |     |      |                                     |  |            |       |
| QA/QC DEFICIENCY (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |             |       |           |                           |     |     |           |             |     |      |                                     |  |            |       |
| CONTRACTORS ON SITE (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |             |       |           |                           |     |     |           |             |     |      |                                     |  |            |       |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Employer</th> <th style="text-align: left; border-bottom: 1px solid black;">Labor Classification</th> <th style="text-align: right; border-bottom: 1px solid black;">Number of<br/>Employees</th> <th style="text-align: right; border-bottom: 1px solid black;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">4.0</td> <td style="text-align: right;">40.5</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">2.0</td> <td style="text-align: right;">20.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td>Sovereign</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">2.0</td> <td style="text-align: right;">20.0</td> </tr> <tr> <td>Sovereign</td> <td>PROJECT MANAGER</td> <td style="text-align: right;">3.0</td> <td style="text-align: right;">16.0</td> </tr> <tr> <td>Sovereign</td> <td>SAFETY ENGINEER - ON SITE</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total hours worked to date: 1,962.3</td> <td style="text-align: right; border-top: 1px solid black;">Total 15.0</td> <td style="text-align: right; border-top: 1px solid black;">134.5</td> </tr> </tbody> </table> |                           |                                                                     |                    | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 4.0   | 40.5 | Moretrech | LABORERS                  | 2.0  | 20.0  | Moretrech | PROJECT ENGINEER | 1.0  | 10.0 | Moretrech | SUPER - CONSTRUCTION | 1.0  | 10.0 | Sovereign | PROJECT ENGINEER | 2.0  | 20.0 | Sovereign                             | PROJECT MANAGER | 3.0         | 16.0  | Sovereign | SAFETY ENGINEER - ON SITE | 1.0 | 8.0 | Sovereign | SUPER - JOB | 1.0 | 10.0 | Total hours worked to date: 1,962.3 |  | Total 15.0 | 134.5 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Labor Classification      | Number of<br>Employees                                              | Hours<br>Worked    |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |             |       |           |                           |     |     |           |             |     |      |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | HEAVY-EQUIPMENT OPERATOR  | 4.0                                                                 | 40.5               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |             |       |           |                           |     |     |           |             |     |      |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | LABORERS                  | 2.0                                                                 | 20.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |             |       |           |                           |     |     |           |             |     |      |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | PROJECT ENGINEER          | 1.0                                                                 | 10.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |             |       |           |                           |     |     |           |             |     |      |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | SUPER - CONSTRUCTION      | 1.0                                                                 | 10.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |             |       |           |                           |     |     |           |             |     |      |                                     |  |            |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | PROJECT ENGINEER          | 2.0                                                                 | 20.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |             |       |           |                           |     |     |           |             |     |      |                                     |  |            |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | PROJECT MANAGER           | 3.0                                                                 | 16.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |             |       |           |                           |     |     |           |             |     |      |                                     |  |            |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | SAFETY ENGINEER - ON SITE | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |             |       |           |                           |     |     |           |             |     |      |                                     |  |            |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | SUPER - JOB               | 1.0                                                                 | 10.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |             |       |           |                           |     |     |           |             |     |      |                                     |  |            |       |
| Total hours worked to date: 1,962.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           | Total 15.0                                                          | 134.5              |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |             |       |           |                           |     |     |           |             |     |      |                                     |  |            |       |
| <b>EQUIPMENT HOURS</b><br><b>The following equipment hours were Reported today:</b> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Serial Number</th> <th style="text-align: left; border-bottom: 1px solid black;">Description</th> <th style="text-align: right; border-bottom: 1px solid black;">Idle<br/>Hours</th> <th style="text-align: right; border-bottom: 1px solid black;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">10.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Exacavtor with Long Stick</td> <td style="text-align: right;">0.50</td> <td style="text-align: right;">10.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">6.00</td> <td style="text-align: right;">4.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">9.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">9.50</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total operating hours to date: 460.00</td> <td style="text-align: right; border-top: 1px solid black;">Total 19.00</td> <td style="text-align: right; border-top: 1px solid black;">33.50</td> </tr> </tbody> </table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           |                                                                     |                    | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A       | Bull Dozer               | 10.50 | 0.00 | N/A       | Exacavtor with Long Stick | 0.50 | 10.00 | N/A       | Loader           | 6.00 | 4.50 | N/A       | Mixing Excavator     | 1.00 | 9.50 | N/A       | Mixing Loader    | 1.00 | 9.50 | Total operating hours to date: 460.00 |                 | Total 19.00 | 33.50 |           |                           |     |     |           |             |     |      |                                     |  |            |       |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Description               | Idle<br>Hours                                                       | Operating<br>Hours |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |             |       |           |                           |     |     |           |             |     |      |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Bull Dozer                | 10.50                                                               | 0.00               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |             |       |           |                           |     |     |           |             |     |      |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Exacavtor with Long Stick | 0.50                                                                | 10.00              |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |             |       |           |                           |     |     |           |             |     |      |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Loader                    | 6.00                                                                | 4.50               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |             |       |           |                           |     |     |           |             |     |      |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Mixing Excavator          | 1.00                                                                | 9.50               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |             |       |           |                           |     |     |           |             |     |      |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Mixing Loader             | 1.00                                                                | 9.50               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |             |       |           |                           |     |     |           |             |     |      |                                     |  |            |       |
| Total operating hours to date: 460.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           | Total 19.00                                                         | 33.50              |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |             |       |           |                           |     |     |           |             |     |      |                                     |  |            |       |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |             |       |           |                           |     |     |           |             |     |      |                                     |  |            |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |             |       |           |                           |     |     |           |             |     |      |                                     |  |            |       |
| <b>CONTRACTOR CERTIFICATION</b> <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |             |       |           |                           |     |     |           |             |     |      |                                     |  |            |       |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | DATE                      | SUPERINTENDENT'S INITIALS                                           | DATE               |               |                      |                        |                    |           |                          |       |      |           |                           |      |       |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |                 |             |       |           |                           |     |     |           |             |     |      |                                     |  |            |       |

|                                                                                     |                                                                                                       |                                          |             |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |                                                                                                       | REPORT NUMBER<br>854                     | Page 1 of 3 |
|                                                                                     |                                                                                                       | DATE<br>31 Aug 2012 - Friday             |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |                                                                                                       | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             | WEATHER<br>Weather Caused No Delay<br>Temperature Min 70 °F, Max 86 °F; No Precipitation; 10 MPH Wind |                                          |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench and AMEC. Provided on-site QC and documentation.  
 AMEC - Provided on-site engineering services and oversight of all field QC testing.  
 Moretrench - Excavation and Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
 Contruction of Working Platform

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Initial Inspection held for DFW: Penetration of Landfill Liner

All imported borrow material used for backfill mix was visually inspected upon arrival.  
 Condition of bentonite supersacks and 50 lb bags inspected upon arrival.

Moretrench completed on-site QC testing of slurry being mixed in tanks prior to placement in trench along with on-site QC testing of slurry within the trench. Moretrech and AMEC also conducted on-site QC testing of backfill batches. Samples of backfill batches also collected for off-site QC testing. AMEC provided oversight of all Moretrench field QC testing to confirm testing was completed properly as per project specifications. Only half the required on-site QC testing performed on the slurry as excavation activities were only conducted for half a shift during the day.

On-site QC Testing Performed:

Bentonite Slurry:

|                          |                |
|--------------------------|----------------|
| Test                     | Time Conducted |
| Viscosity-Initial        | 1000           |
| Viscosity- In trench     | 0850 & 1300    |
| Density- Initial         | 1013           |
| Density- In trench       | 0854 & 1304    |
| Filtrate Loss- Initial   | 1044           |
| Filtrate Loss- In trench | 0927 & 1336    |
| pH- Initial              | 1015           |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Soil-Bentonite Backfill:

|         |                |
|---------|----------------|
| Test    | Time Conducted |
| Slump   | 1115 & 1318    |
| Density | 1119 & 1321    |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Samples collected of Soil-Bentonite Backfill for off-site analysis of Permeability, Gradation, and Materials Fines Content. AMEC completed field Materials Fines Content testing on backfill mix for batches 17 through 19. Results of Fine Content % ranged from 37% in Batch 17 to 50% in Batch 19. Average Fine Content % was 44%.

Backfill Slope soundings conducted at stations at the start and end of the work shift.  
 Current trench profile emailed under seperate cover to USACE representatives.



**CONTRACTORS QUALITY CONTROL REPORT (QCR)  
DAILY LOG OF CONSTRUCTION**

REPORT NUMBER  
854 Page 2 of 3

DATE  
31 Aug 2012 - Friday

PROJECT  
Shepley's Landfil, Devens Cutoff Wall

CONTRACT NUMBER  
W912WJ-10-D-0003 0002

**Did anything develop that may lead to a Change Order/Claim?**

No developments that may lead to a Change Oder during the day.

**Were there any Delays in Work Progress today?**

No major delays in work progress during the day.

**General Comments:**

Work Completed During the Day:

Sovereign: Provided project oversight and on-site QC of Moretrench and AMEC. Photographed progress of excavation and backfill mixing as trench advanced. Photo IDs: 083112-01 through 083112-11.

AMEC: Provided oversight of on-site QC testing performed by Moretrench and trench exvcavation activities. Also made final determination of trench depths and if refusal criteria had been met at each 10 foot station. Performed in field Materials Fine Content testing on backfill mix.

Moretrench: Continued mixing slurry and filling tanks. Continued backfill mixing with excavator. Excavation activites only conducted during first half of the work shift. Completed excavation of trench from 5+20 to 5+60. Backfilled trench with 1 1/2 batches of backfill. Backfill complete up to station 4+40. Backfill quantities summarized on Trench Profile submitted under seperate cover the USACE representatives. Performed all required on-site QC testing. General site clean-up at end of the shift.

Final Trench Depths at 10 foot stations during the day:

| Station | Final Trench Depth |
|---------|--------------------|
| 5+30    | 39.8'              |
| 5+40    | 40.0'              |
| 5+50    | 40.6'              |
| 5+60    | 40.5'              |

Materials Brought on Site:

300 cys of Imported Clay Borrow for backfill mix (W.J. Graves)

Bentonite (Hydrogel):

17 Bulk Bags

900 (50 lb) Bags

Equipment Brought on Site:

No additional equipment brought on-site during the day.

Additional Notes:

It appeared that slough occured overnight at station 4+30. Morning soundings of trench were in range and slough did not likely fall in the trench.

**Verbal Instructions given by Government:**

No verbal instruction given by the government during the day.

Marcus Madison (USACE) on site during the afternoon.

**Safety Inspection / Safety Meetings:**

Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviuewed prior to start of work activties.

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           | REPORT NUMBER<br>854 <span style="float: right;">Page 3 of 3</span> |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------------------------------------------|--------------------|---------------|----------------------|------------------------|--------------------|-----------|--------------------------|------|------|-----------|---------------------------|------|------|-----------|------------------|------|------|-----------|----------------------|------|------|-----------|------------------|------|------|---------------------------------------|-------------|-------------|-------|-------------------------------------|--|------------|------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           | DATE<br>31 Aug 2012 - Friday                                        |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br>No preparatory inspections were held today<br>An initial inspection was held today for the following feature:<br>Penetration of Landfill Liner                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| <b>ACTIVITY START/FINISH</b><br>No activities were started or finished today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| <b>QC REQUIREMENTS</b><br>No QC requirements were completed today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br>No QC Deficiency items were issued today<br>No Deficiency items were corrected today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br>No contractors had their first or last day on site today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| <b>LABOR HOURS</b><br>The following labor hours were Reported today: <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">4.0</td> <td style="text-align: right;">32.5</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">2.0</td> <td style="text-align: right;">16.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Sovereign</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">6.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total hours worked to date: 2,040.8</td> <td style="text-align: right; border-top: 1px solid black;">Total 10.0</td> <td style="text-align: right; border-top: 1px solid black;">78.5</td> </tr> </tbody> </table> |                           |                                                                     |                    | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 4.0  | 32.5 | Moretrech | LABORERS                  | 2.0  | 16.0 | Moretrech | PROJECT ENGINEER | 1.0  | 8.0  | Moretrech | SUPER - CONSTRUCTION | 1.0  | 8.0  | Sovereign | PROJECT ENGINEER | 1.0  | 6.0  | Sovereign                             | SUPER - JOB | 1.0         | 8.0   | Total hours worked to date: 2,040.8 |  | Total 10.0 | 78.5 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Labor Classification      | Number of<br>Employees                                              | Hours<br>Worked    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | HEAVY-EQUIPMENT OPERATOR  | 4.0                                                                 | 32.5               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | LABORERS                  | 2.0                                                                 | 16.0               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | PROJECT ENGINEER          | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | SUPER - CONSTRUCTION      | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | PROJECT ENGINEER          | 1.0                                                                 | 6.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | SUPER - JOB               | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| Total hours worked to date: 2,040.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           | Total 10.0                                                          | 78.5               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| <b>EQUIPMENT HOURS</b><br>The following equipment hours were Reported today: <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle<br/>Hours</th> <th style="text-align: right;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Exacavtor with Long Stick</td> <td style="text-align: right;">4.00</td> <td style="text-align: right;">4.50</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">3.50</td> <td style="text-align: right;">5.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">7.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">7.50</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total operating hours to date: 484.50</td> <td style="text-align: right; border-top: 1px solid black;">Total 18.00</td> <td style="text-align: right; border-top: 1px solid black;">24.50</td> </tr> </tbody> </table>                                                                                                                                                                      |                           |                                                                     |                    | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A       | Bull Dozer               | 8.50 | 0.00 | N/A       | Exacavtor with Long Stick | 4.00 | 4.50 | N/A       | Loader           | 3.50 | 5.00 | N/A       | Mixing Excavator     | 1.00 | 7.50 | N/A       | Mixing Loader    | 1.00 | 7.50 | Total operating hours to date: 484.50 |             | Total 18.00 | 24.50 |                                     |  |            |      |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Description               | Idle<br>Hours                                                       | Operating<br>Hours |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Bull Dozer                | 8.50                                                                | 0.00               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Exacavtor with Long Stick | 4.00                                                                | 4.50               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Loader                    | 3.50                                                                | 5.00               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Mixing Excavator          | 1.00                                                                | 7.50               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Mixing Loader             | 1.00                                                                | 7.50               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| Total operating hours to date: 484.50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           | Total 18.00                                                         | 24.50              |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br>No accidents reported today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | DATE                      | SUPERINTENDENT'S INITIALS                                           | DATE               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |      |

|                                                                                     |  |                                                                                                       |             |
|-------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |  | REPORT NUMBER<br>858                                                                                  | Page 1 of 3 |
|                                                                                     |  | DATE<br>04 Sep 2012 - Tuesday                                                                         |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |  | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                              |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             |  | WEATHER<br>Weather Caused No Delay<br>Temperature Min 65 °F, Max 78 °F; No Precipitation; 10 MPH Wind |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench and AMEC. Provided on-site QC and documentation.  
 AMEC - Provided on-site engineering services and oversight of all field QC testing.  
 Moretrench - Excavation and Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
 Contruction of Working Platform

**Quality Control Inspections and Activities (List by Feature of Work)**  
 All imported borrow for backfill mix inspected upon delivery.

Moretrench completed on-site QC testing of slurry being mixed in tanks prior to placement in trench along with on-site QC testing of slurry within the trench. Moretrech and AMEC also conducted on-site QC testing of backfill batches. Samples of backfill batches also collected for off-site QC testing. AMEC provided oversight of all Moretrench field QC testing to confirm testing was completed properly as per project specification and all results were within acceptable ranges.

Bentonite Slurry:

|                          |                   |
|--------------------------|-------------------|
| Test                     | Time Conducted    |
| Viscosity-Initial        | 1134 & 1535       |
| Viscosity- In trench     | 1100, 1350 & 1615 |
| Density- Initial         | 1138 & 1540       |
| Density- In trench       | 1104, 1353 & 1621 |
| Filtrate Loss- Initial   | 1209 & 1611       |
| Filtrate Loss- In trench | 1136, 1425 & 1652 |
| pH- Initial              | 1135 & 1537       |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Soil-Bentonite Backfill:

|         |                |
|---------|----------------|
| Test    | Time Conducted |
| Slump   | 1020 & 1549    |
| Density | 1119 & 1621    |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Samples collected of Soil-Bentonite Backfill for off-site analysis of Permeability, Gradation, and Materials Fines Content. AMEC conducted on-site Materials Fines Content for backfill batches 20 through 25. Fines Content % ranged from 38% in batch 22 to 50% in batch 21. Average Fines Content % was 46%.

Backfill Slope soundings conducted at stations at the start and end of the work shift.  
 Current trench profile emailed under seperate cover to USACE representatives.

**Did anything develop that may lead to a Change Order/Claim ?**  
 No developments that may lead to a Change Order during the day.

**Were there any Delays in Work Progress today?**

| <div> <div>CONTRACTORS QUALITY CONTROL REPORT (QCR)</div> <div>DAILY LOG OF CONSTRUCTION</div> </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                    | <div>REPORT NUMBER</div> <div>858</div> <div>Page 2 of 3</div> |         |                    |      |       |      |       |      |       |      |       |      |       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------------------------------------------------------|---------|--------------------|------|-------|------|-------|------|-------|------|-------|------|-------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                    | <div>DATE</div> <div>04 Sep 2012 - Tuesday</div>               |         |                    |      |       |      |       |      |       |      |       |      |       |
| <div>PROJECT</div> <div>Shepley's Landfil, Devens Cutoff Wall</div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                    | <div>CONTRACT NUMBER</div> <div>W912WJ-10-D-0003 0002</div>    |         |                    |      |       |      |       |      |       |      |       |      |       |
| <p>No was a minor 1.5 hour delays in work progress during the day as the boom of the long-stick excavator was making inspected after making loud noises. Excavation was halted to inspect pins and bushings on the end of the stick. Only general wear detected on stick pin.</p> <p><b>General Comments:</b></p> <p>Work Completed During the Day:</p> <p>Sovereign: Provided project oversight and on-site QC of Moretrench and AMEC. Photographed progress of excavation and backfill mixing as trench advanced. Photo IDs: 090412-01 through 090412-14.</p> <p>AMEC: Geotechnical Engineer provided oversight of on-site QC testing performed by Moretrench and trench exvavation activities. Geotechnical Engineer made all final determination of trench depths and if refusal criteria had been met at each 10 foot station. Geotechnical Engineer completed on site Fine Content % of backfill mixes.</p> <p>Moretrench: Continued mixing slurry and filling tanks. Continued backfill mixing with excavator. Completed excavation of trench from 5+60 to 6+10. Backfilled trench with 1 1/2 batches of backfill. Backfill complete up to station 4+90. Backfill quantities summarized on Trench Profile submitted under seperate cover the USACE representatives. Performed all required on-site QC testing. Completed construction working platform out to station 7+40. General site clean-up at end of the shift.</p> <p>Final Trench Depths at 10 foot stations during the day:</p> <table> <tr> <th>Station</th> <th>Final Trench Depth</th> </tr> <tr> <td>5+70</td> <td>39.0'</td> </tr> <tr> <td>5+80</td> <td>39.2'</td> </tr> <tr> <td>5+90</td> <td>36.6'</td> </tr> <tr> <td>6+00</td> <td>36.6'</td> </tr> <tr> <td>6+10</td> <td>36.6'</td> </tr> </table> <p>Materials Brought on Site:</p> <p>400 cys of Imported Clay Borrow for backfill mix (W.J. Graves)</p> <p>Equipment Brought on Site:</p> <p>No additional equipment brought on-site during the day.</p> <p>Additional Notes:</p> <p>Moretrench went back and scraped bottom of trench back to bedrock from station 5+20 to 5+60 before continuing with trench excavations to station 5+70 due the fact no excavation activities occured over the long three day weekend. This was followed my morning sounding of the trench being conducted again.</p> <p>It was noted that a very limited amount of trench cuttings are being made available for use in backfill due to large amounts of trash being encountered in excavated material in stations being excavated during the day. Sovereign, AMEC, and Moretrench are scheduled to have a confernece call on the issue the morning of the following day to discuss a possible other backfill mixture using a higher percentage of the imported fines borrow in the backfill mix batches.</p> <p><b>Verbal Instructions given by Government:</b></p> <p>Randy LeCuyer and Marcus Madison (USACE Construction Representitives) on site during the morning. Conducted walk-through and inspection of the site.</p> <p>No verbal instruction given by the government during the day.</p> <p><b>Safety Inspection / Safety Meetings:</b></p> <p>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviuewed prior to start of work activties.</p> |                    |                                                                | Station | Final Trench Depth | 5+70 | 39.0' | 5+80 | 39.2' | 5+90 | 36.6' | 6+00 | 36.6' | 6+10 | 36.6' |
| Station                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Final Trench Depth |                                                                |         |                    |      |       |      |       |      |       |      |       |      |       |
| 5+70                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 39.0'              |                                                                |         |                    |      |       |      |       |      |       |      |       |      |       |
| 5+80                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 39.2'              |                                                                |         |                    |      |       |      |       |      |       |      |       |      |       |
| 5+90                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 36.6'              |                                                                |         |                    |      |       |      |       |      |       |      |       |      |       |
| 6+00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 36.6'              |                                                                |         |                    |      |       |      |       |      |       |      |       |      |       |
| 6+10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 36.6'              |                                                                |         |                    |      |       |      |       |      |       |      |       |      |       |
| <div>PREP/INITIAL DATES</div> <div>(Preparatory and initial dates held and advance notice)</div> <div>No preparatory or initial inspections were held today</div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                    |                                                                |         |                    |      |       |      |       |      |       |      |       |      |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                    |                                                                |         |                    |      |       |      |       |      |       |      |       |      |       |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           | REPORT NUMBER<br>858 <span style="float: right;">Page 3 of 3</span> |                           |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------------------------------------------|---------------------------|---------------|----------------------|---------------------|-----------------|-----------|--------------------------|------|------|-----------|---------------------------|------|------|-----------|------------------|------|------|-----------|----------------------|------|------|-----------|------------------|------|------|---------------------------------------|-------------|-------|-------|-------------------------------------|--|-------|-------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           | DATE<br>04 Sep 2012 - Tuesday                                       |                           |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                            |                           |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |
| <b>ACTIVITY START/FINISH</b><br>No activities were started or finished today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           |                                                                     |                           |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |
| <b>QC REQUIREMENTS</b><br>No QC requirements were completed today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           |                                                                     |                           |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br>No QC Deficiency items were issued today<br>No Deficiency items were corrected today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           |                                                                     |                           |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br>No contractors had their first or last day on site today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           |                                                                     |                           |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |
| <b>LABOR HOURS</b><br>The following labor hours were Reported today: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Employer</th> <th>Labor Classification</th> <th>Number of Employees</th> <th>Hours Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td>4.0</td> <td>40.5</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td>3.0</td> <td>30.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td>1.0</td> <td>10.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td>1.0</td> <td>10.0</td> </tr> <tr> <td>Sovereign</td> <td>PROJECT ENGINEER</td> <td>1.0</td> <td>10.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td>1.0</td> <td>10.0</td> </tr> <tr> <td colspan="2">Total hours worked to date: 2,151.3</td> <td>Total</td> <td>110.5</td> </tr> </tbody> </table> |                           |                                                                     |                           | Employer      | Labor Classification | Number of Employees | Hours Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 4.0  | 40.5 | Moretrech | LABORERS                  | 3.0  | 30.0 | Moretrech | PROJECT ENGINEER | 1.0  | 10.0 | Moretrech | SUPER - CONSTRUCTION | 1.0  | 10.0 | Sovereign | PROJECT ENGINEER | 1.0  | 10.0 | Sovereign                             | SUPER - JOB | 1.0   | 10.0  | Total hours worked to date: 2,151.3 |  | Total | 110.5 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Labor Classification      | Number of Employees                                                 | Hours Worked              |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | HEAVY-EQUIPMENT OPERATOR  | 4.0                                                                 | 40.5                      |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | LABORERS                  | 3.0                                                                 | 30.0                      |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | PROJECT ENGINEER          | 1.0                                                                 | 10.0                      |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | SUPER - CONSTRUCTION      | 1.0                                                                 | 10.0                      |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | PROJECT ENGINEER          | 1.0                                                                 | 10.0                      |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | SUPER - JOB               | 1.0                                                                 | 10.0                      |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |
| Total hours worked to date: 2,151.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           | Total                                                               | 110.5                     |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |
| <b>EQUIPMENT HOURS</b><br>The following equipment hours were Reported today: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Serial Number</th> <th>Description</th> <th>Idle Hours</th> <th>Operating Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td>8.50</td> <td>2.00</td> </tr> <tr> <td>N/A</td> <td>Exacavtor with Long Stick</td> <td>3.50</td> <td>7.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td>4.00</td> <td>6.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td>1.00</td> <td>9.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td>1.00</td> <td>9.50</td> </tr> <tr> <td colspan="2">Total operating hours to date: 519.00</td> <td>Total</td> <td>34.50</td> </tr> </tbody> </table>                                                                                                                      |                           |                                                                     |                           | Serial Number | Description          | Idle Hours          | Operating Hours | N/A       | Bull Dozer               | 8.50 | 2.00 | N/A       | Exacavtor with Long Stick | 3.50 | 7.00 | N/A       | Loader           | 4.00 | 6.50 | N/A       | Mixing Excavator     | 1.00 | 9.50 | N/A       | Mixing Loader    | 1.00 | 9.50 | Total operating hours to date: 519.00 |             | Total | 34.50 |                                     |  |       |       |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Description               | Idle Hours                                                          | Operating Hours           |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Bull Dozer                | 8.50                                                                | 2.00                      |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Exacavtor with Long Stick | 3.50                                                                | 7.00                      |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Loader                    | 4.00                                                                | 6.50                      |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Mixing Excavator          | 1.00                                                                | 9.50                      |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Mixing Loader             | 1.00                                                                | 9.50                      |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |
| Total operating hours to date: 519.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           | Total                                                               | 34.50                     |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br>No accidents reported today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                           |                                                                     |                           |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           |                                                                     |                           |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           |                                                                     |                           |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                           | DATE                                                                | SUPERINTENDENT'S INITIALS |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           |                                                                     | DATE                      |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |

|                                                                                     |  |                                                                                                            |             |
|-------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |  | REPORT NUMBER<br>859                                                                                       | Page 1 of 3 |
|                                                                                     |  | DATE<br>05 Sep 2012 - Wednesday                                                                            |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |  | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                                   |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             |  | WEATHER<br>Weather Caused No Delay<br>Temperature Min 65 °F, Max 78 °F; 0.02 IN Precipitation; 10 MPH Wind |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench and AMEC. Provided on-site QC and documentation.  
 AMEC - Provided on-site engineering services and oversight of all field QC testing.  
 Moretrench - Excavation and Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
 Contruction of Working Platform

**Quality Control Inspections and Activities (List by Feature of Work)**  
 All imported borrow for backfill mix inspected upon delivery.

Moretrench completed on-site QC testing of slurry being mixed in tanks prior to placement in trench along with on-site QC testing of slurry within the trench. Moretrech and AMEC also conducted on-site QC testing of backfill batches. Samples of backfill batches also collected for off-site QC testing. AMEC provided oversight of all Moretrench field QC testing to confirm testing was completed properly as per project specification and all results were within acceptable ranges. Limited amount of QC on slurry has excavation ativities were only conducted for a quater of a shift.

Bentonite Slurry:

| Test                     | Time Conducted |
|--------------------------|----------------|
| Viscosity-Initial        | 0950           |
| Viscosity- In trench     | 1415           |
| Density- Initial         | 0954           |
| Density- In trench       | 1418           |
| Filtrate Loss- Initial   | 1027           |
| Filtrate Loss- In trench | 1450           |
| pH- Initial              | 1008           |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Soil-Bentonite Backfill:

| Test    | Time Conducted |
|---------|----------------|
| Slump   | 1040           |
| Density | 1119           |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Samples collected of Soil-Bentonite Backfill for off-site analysis of Permeability, Gradation, and Materials Fines Content. AMEC conducted on-site Materials Fines Content for backfill batches 26 through 28. Fines Content % ranged from 45% in batch 26 to 56% in batch 28. Average Fines Content % was 52%.

Backfill Slope soundings conducted at stations at the start and end of the work shift.  
 Current trench profile emailed under seperate cover to USACE representatives.

**Did anything develop that may lead to a Change Order/Claim ?**  
 No developments that may lead to a Change Order during the day.

**Were there any Delays in Work Progress today?**

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                    | REPORT NUMBER<br>859                     | Page 2 of 3 |         |                    |      |       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|------------------------------------------|-------------|---------|--------------------|------|-------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                    | DATE<br>05 Sep 2012 - Wednesday          |             |         |                    |      |       |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                    | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |         |                    |      |       |
| <p>Excavation activities were only conducted for a quarter of a shift as the H-Link pin and the H-Link itself was it need of replacing on the long-stick of 374 excavator. Parts to arrive the next morning at 0700 to make all needed repairs. Moretrench completed the remainder of the working platform construction during the down excavation time.</p> <p><b>General Comments:</b><br/>         Work Completed During the Day:</p> <p>Sovereign: Provided project oversight and on-site QC of Moretrench and AMEC.</p> <p>AMEC: Geotechnical Engineer provided oversight of on-site QC testing performed by Moretrench and trench exvavation activities. Geotechnical Engineer made all final determination of trench depths and if refusal criteria had been met at each 10 foot station. Geotechnical Engineer completed on site Fine Content % of backfill mixes.</p> <p>Moretrench: Continued mixing slurry and filling tanks. Continued backfill mixing with excavator. Completed excavation of trench from 6+10 to 6+20. Backfilled trench with a 1/2 batche of backfill. Backfill complete up to station 5+00. Backfill quantities summarized on Trench Profile submitted under seperate cover the USACE representatives. Performed all required on-site QC testing. Completed the remainder of the construction of working platform. General site clean-up at end of the shift.</p> <p>Final Trench Depths at 10 foot stations during the day:</p> <table border="1"> <thead> <tr> <th>Station</th> <th>Final Trench Depth</th> </tr> </thead> <tbody> <tr> <td>6+20</td> <td>38.4'</td> </tr> </tbody> </table> <p>Materials Brought on Site:</p> <p>No additional material brought on-site during the day.</p> <p>Equipment Brought on Site:</p> <p>No additional equipment brought on-site during the day.</p> <p>Additional Notes:</p> <p>It was noted that a very limited amount of trench cuttings were being made available for use in backfill due to large amounts of trash being encountered in excavated material in stations being excavated the last few days. Sovereign, AMEC, and Moretrench condcuted a confernece call on the issue. It was determined to use a 75 % imported fines to 25% trench cuttings backfill mix. A sample was taken of this mixutre in afternoon and sent to the lab for a rush turn on permeability analysis.</p> <p><b>Verbal Instructions given by Government:</b><br/>         Randy LeCuyer, Marcus Madison (USACE Construction Representitives), and Zach Mothersed (Project Eng.) on site during the morning. Conducted walk-through and inspection of the site.</p> <p>No verbal instruction given by the government during the day.</p> <p><b>Safety Inspection / Safety Meetings:</b><br/>         Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviuewed prior to start of work activties.</p> |                    |                                          |             | Station | Final Trench Depth | 6+20 | 38.4' |
| Station                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Final Trench Depth |                                          |             |         |                    |      |       |
| 6+20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 38.4'              |                                          |             |         |                    |      |       |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                    |                                          |             |         |                    |      |       |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                    |                                          |             |         |                    |      |       |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                    |                                          |             |         |                    |      |       |
| Empty space for additional notes or comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                    |                                          |             |         |                    |      |       |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           | REPORT NUMBER<br>859                     |                           | Page 3 of 3 |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |  |  |  |      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|------------------------------------------|---------------------------|-------------|---------------|----------------------|---------------------|-----------------|-----------|--------------------------|------|------|-----------|---------------------------|------|------|-----------|------------------|------|------|-----------|----------------------|------|------|-----------|------------------|------|------|---------------------------------------|-------------|-------|-------|-------------------------------------|--|-------|-------|--|--|--|------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           | DATE<br>05 Sep 2012 - Wednesday          |                           |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |  |  |  |      |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |                           |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |  |  |  |      |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br>No QC Deficiency items were issued today<br>No Deficiency items were corrected today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |  |  |  |      |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br>No contractors had their first or last day on site today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |  |  |  |      |
| <b>LABOR HOURS</b><br>The following labor hours were Reported today: <table border="1"> <thead> <tr> <th>Employer</th> <th>Labor Classification</th> <th>Number of Employees</th> <th>Hours Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td>4.0</td> <td>32.5</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td>2.0</td> <td>16.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td>Sovereign</td> <td>PROJECT ENGINEER</td> <td>1.0</td> <td>7.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td colspan="2">Total hours worked to date: 2,230.8</td> <td>Total</td> <td>10.0</td> </tr> <tr> <td colspan="2"></td> <td></td> <td>79.5</td> </tr> </tbody> </table> |                           |                                          |                           |             | Employer      | Labor Classification | Number of Employees | Hours Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 4.0  | 32.5 | Moretrech | LABORERS                  | 2.0  | 16.0 | Moretrech | PROJECT ENGINEER | 1.0  | 8.0  | Moretrech | SUPER - CONSTRUCTION | 1.0  | 8.0  | Sovereign | PROJECT ENGINEER | 1.0  | 7.0  | Sovereign                             | SUPER - JOB | 1.0   | 8.0   | Total hours worked to date: 2,230.8 |  | Total | 10.0  |  |  |  | 79.5 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Labor Classification      | Number of Employees                      | Hours Worked              |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |  |  |  |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | HEAVY-EQUIPMENT OPERATOR  | 4.0                                      | 32.5                      |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |  |  |  |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | LABORERS                  | 2.0                                      | 16.0                      |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |  |  |  |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | PROJECT ENGINEER          | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |  |  |  |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | SUPER - CONSTRUCTION      | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |  |  |  |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | PROJECT ENGINEER          | 1.0                                      | 7.0                       |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |  |  |  |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | SUPER - JOB               | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |  |  |  |      |
| Total hours worked to date: 2,230.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           | Total                                    | 10.0                      |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |  |  |  |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           |                                          | 79.5                      |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |  |  |  |      |
| <b>EQUIPMENT HOURS</b><br>The following equipment hours were Reported today: <table border="1"> <thead> <tr> <th>Serial Number</th> <th>Description</th> <th>Idle Hours</th> <th>Operating Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td>5.00</td> <td>3.50</td> </tr> <tr> <td>N/A</td> <td>Exacavtor with Long Stick</td> <td>5.50</td> <td>3.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td>3.50</td> <td>5.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td>1.00</td> <td>7.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td>1.00</td> <td>7.50</td> </tr> <tr> <td colspan="2">Total operating hours to date: 545.50</td> <td>Total</td> <td>16.00</td> </tr> <tr> <td colspan="2"></td> <td></td> <td>26.50</td> </tr> </tbody> </table>                                                                                                                |                           |                                          |                           |             | Serial Number | Description          | Idle Hours          | Operating Hours | N/A       | Bull Dozer               | 5.00 | 3.50 | N/A       | Exacavtor with Long Stick | 5.50 | 3.00 | N/A       | Loader           | 3.50 | 5.00 | N/A       | Mixing Excavator     | 1.00 | 7.50 | N/A       | Mixing Loader    | 1.00 | 7.50 | Total operating hours to date: 545.50 |             | Total | 16.00 |                                     |  |       | 26.50 |  |  |  |      |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Description               | Idle Hours                               | Operating Hours           |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |  |  |  |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Bull Dozer                | 5.00                                     | 3.50                      |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |  |  |  |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Exacavtor with Long Stick | 5.50                                     | 3.00                      |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |  |  |  |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Loader                    | 3.50                                     | 5.00                      |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |  |  |  |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Mixing Excavator          | 1.00                                     | 7.50                      |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |  |  |  |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Mixing Loader             | 1.00                                     | 7.50                      |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |  |  |  |      |
| Total operating hours to date: 545.50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           | Total                                    | 16.00                     |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |  |  |  |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           |                                          | 26.50                     |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |  |  |  |      |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br>No accidents reported today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |  |  |  |      |
| <div style="height: 200px;"></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |  |  |  |      |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |  |  |  |      |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           | DATE                                     | SUPERINTENDENT'S INITIALS |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |  |  |  |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |       |       |                                     |  |       |       |  |  |  |      |



|                                                                                     |  |                                                                                                      |             |
|-------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |  | REPORT NUMBER<br>860                                                                                 | Page 1 of 3 |
|                                                                                     |  | DATE<br>06 Sep 2012 - Thursday                                                                       |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |  | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                             |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             |  | WEATHER<br>Weather Caused No Delay<br>Temperature Min 68 °F, Max 83 °F; No Precipitation; 5 MPH Wind |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench and AMEC. Provided on-site QC and documentation.  
 AMEC - Provided on-site engineering services and oversight of all field QC testing.  
 Moretrench - Excavation and Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
 Penetration of Landfill Liner

**Quality Control Inspections and Activities (List by Feature of Work)**  
 All imported borrow for backfill mix inspected upon delivery.

Moretrench completed on-site QC testing of slurry being mixed in tanks prior to placement in trench along with on-site QC testing of slurry within the trench. Moretrech and AMEC also conducted on-site QC testing of backfill batches. Samples of backfill batches also collected for off-site QC testing. AMEC provided oversight of all Moretrench field QC testing to confirm testing was completed properly as per project specification and all results were within acceptable ranges.

Bentonite Slurry:

| Test                     | Time Conducted    |
|--------------------------|-------------------|
| Viscosity-Initial        | 0850 & 1400       |
| Viscosity- In trench     | 1020, 1236 & 1500 |
| Density- Initial         | 0854 & 1406       |
| Density- In trench       | 1023, 1240 & 1510 |
| Filtrate Loss- Initial   | 0927 & 1438       |
| Filtrate Loss- In trench | 1054, 1311 & 1542 |
| pH- Initial              | 0856 & 1404       |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Soil-Bentonite Backfill:

| Test    | Time Conducted |
|---------|----------------|
| Slump   | 1100 & 1300    |
| Density | 1119 & 1315    |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Samples collected of Soil-Bentonite Backfill for off-site analysis of Permeability, Gradation, and Materials Fines Content. AMEC conducted on-site Materials Fines Content for backfill batch 28 (75/25 mixutre of Fines/Trench Cuttings). Fines Content % of batch 28 was 61%.

Backfill Slope soundings conducted at stations at the start and end of the work shift.  
 Current trench profile emailed under seperate cover to USACE representatives.

**Did anything develop that may lead to a Change Order/Claim ?**  
 No developments that may lead to a Change Order during the day.

**Were there any Delays in Work Progress today?**

| <div> <div>CONTRACTORS QUALITY CONTROL REPORT (QCR)</div> <div>DAILY LOG OF CONSTRUCTION</div> </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                    | <div>REPORT NUMBER</div> <div>860</div> <div>Page 2 of 3</div> |         |                    |      |       |      |       |      |       |      |       |                                                                                                                                                        |  |  |  |  |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------------------------------------------------------|---------|--------------------|------|-------|------|-------|------|-------|------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    | <div>DATE</div> <div>06 Sep 2012 - Thursday</div>              |         |                    |      |       |      |       |      |       |      |       |                                                                                                                                                        |  |  |  |  |  |
| <div>PROJECT</div> <div>Shepley's Landfil, Devens Cutoff Wall</div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                    | <div>CONTRACT NUMBER</div> <div>W912WJ-10-D-0003 0002</div>    |         |                    |      |       |      |       |      |       |      |       |                                                                                                                                                        |  |  |  |  |  |
| <div> <div> <div>Minor delays in work progress during the day as mechanical problems with the boom and long-stick of the 374 excavator were encountered. Did not start excavation activities in the morning untill 0900 as a new H-Link and Pin were installed.</div> <div>Excavation activties were ceased at 1530 as it was determined the bushing in the stick were crushed. New parts to arrive the next morning at 0700.</div> </div> <div> <div>General Comments:</div> <div>Work Completed During the Day:</div> <div> <div>Sovereign: Provided project oversight and on-site QC of Moretrench and AMEC. Photographed progress of excavation and backfill mixing as trench advanced. Photo IDs: 090612-01 through 090612-04.</div> <div>AMEC: Principal Geotechnical Engineer provided oversight of on-site QC testing performed by Moretrench and trench exvcavation activities. Principal Geotechnical Engineer made all final determination of trench depths and if refusal criteria had been met at each 10 foot station. Principal Geotechnical Engineer completed on site Fine Content % of backfill mixes.</div> <div>Moretrench: Continued mixing slurry and filling tanks. Continued backfill mixing with excavator. Completed excavation of trench from 6+20 to 6+60. Backfilled trench with 1 1/2 batches of backfill. Backfill complete up to station 5+40. Backfill quantities summarized on Trench Profile submitted under seperate cover the USACE representatives. Performed all required on-site QC testing. General site clean-up at end of the shift.</div> <div>Final Trench Depths at 10 foot stations during the day:</div> <table> <tr> <th>Station</th> <th>Final Trench Depth</th> </tr> <tr> <td>6+30</td> <td>38.5'</td> </tr> <tr> <td>6+40</td> <td>40.2'</td> </tr> <tr> <td>6+50</td> <td>40.6'</td> </tr> <tr> <td>6+60</td> <td>39.5'</td> </tr> </table> <div>Materials Brought on Site:</div> <div>25 cys of Imported Clay Borrow for backfill mix (W.J. Graves)</div> <div>Equipment Brought on Site:</div> <div>No additional equipment brought on-site during the day.</div> <div>Additional Notes:</div> <div>Bill Brandon (US EPA) on site during the day. Given periodic status updates by Sovereign and AMEC Principal Engineer. No major comments or concerns noted from EPA representative.</div> <div>Backfill mixes are now being mixed with 75% Imported Fines and 25% Trench cuttings. New mixes started around station 5+10.</div> </div> <div> <div>Verbal Instructions given by Government:</div> <div>Randy Lecuyer and Marcus Madison (USACE Construction Representative) on site during the morning. Conducted walk-through and inspection of the site.</div> <div>No verbal instruction given by the government during the day.</div> </div> <div> <div>Safety Inspection / Safety Meetings:</div> <div>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviewed prior to start of work activties.</div> </div> </div> <tr> <td colspan="3"> <div>PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)</div> <div>No preparatory or initial inspections were held today</div> </td> </tr> <tr> <td colspan="3"></td> </tr> </div> |                    |                                                                | Station | Final Trench Depth | 6+30 | 38.5' | 6+40 | 40.2' | 6+50 | 40.6' | 6+60 | 39.5' | <div>PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)</div> <div>No preparatory or initial inspections were held today</div> |  |  |  |  |  |
| Station                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Final Trench Depth |                                                                |         |                    |      |       |      |       |      |       |      |       |                                                                                                                                                        |  |  |  |  |  |
| 6+30                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 38.5'              |                                                                |         |                    |      |       |      |       |      |       |      |       |                                                                                                                                                        |  |  |  |  |  |
| 6+40                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 40.2'              |                                                                |         |                    |      |       |      |       |      |       |      |       |                                                                                                                                                        |  |  |  |  |  |
| 6+50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 40.6'              |                                                                |         |                    |      |       |      |       |      |       |      |       |                                                                                                                                                        |  |  |  |  |  |
| 6+60                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 39.5'              |                                                                |         |                    |      |       |      |       |      |       |      |       |                                                                                                                                                        |  |  |  |  |  |
| <div>PREP/INITIAL DATES (Preparatory and initial dates held and advance notice)</div> <div>No preparatory or initial inspections were held today</div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                    |                                                                |         |                    |      |       |      |       |      |       |      |       |                                                                                                                                                        |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    |                                                                |         |                    |      |       |      |       |      |       |      |       |                                                                                                                                                        |  |  |  |  |  |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           | REPORT NUMBER<br>860 <span style="float: right;">Page 3 of 3</span> |                           |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |       |  |      |       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------------------------------------------|---------------------------|---------------|----------------------|---------------------|-----------------|-----------|--------------------------|-------|------|-----------|---------------------------|------|------|-----------|------------------|------|------|-----------|----------------------|------|------|-----------|------------------|------|------|-----------|-------------|-------|-------|-------|--|------|-------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           | DATE<br>06 Sep 2012 - Thursday                                      |                           |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |       |  |      |       |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                            |                           |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |       |  |      |       |
| <b>ACTIVITY START/FINISH</b><br>No activities were started or finished today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           |                                                                     |                           |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |       |  |      |       |
| <b>QC REQUIREMENTS</b><br>No QC requirements were completed today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           |                                                                     |                           |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |       |  |      |       |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br>No QC Deficiency items were issued today<br>No Deficiency items were corrected today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                           |                                                                     |                           |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |       |  |      |       |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br>No contractors had their first or last day on site today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           |                                                                     |                           |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |       |  |      |       |
| <b>LABOR HOURS</b><br>The following labor hours were Reported today: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Employer</th> <th>Labor Classification</th> <th>Number of Employees</th> <th>Hours Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td>4.0</td> <td>40.5</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td>3.0</td> <td>30.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td>1.0</td> <td>10.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td>1.0</td> <td>10.0</td> </tr> <tr> <td>Sovereign</td> <td>PROJECT ENGINEER</td> <td>1.0</td> <td>10.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td>1.0</td> <td>10.0</td> </tr> <tr> <td colspan="2">Total</td> <td>11.0</td> <td>110.5</td> </tr> </tbody> </table> Total hours worked to date: 2,341.3 |                           |                                                                     |                           | Employer      | Labor Classification | Number of Employees | Hours Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 4.0   | 40.5 | Moretrech | LABORERS                  | 3.0  | 30.0 | Moretrech | PROJECT ENGINEER | 1.0  | 10.0 | Moretrech | SUPER - CONSTRUCTION | 1.0  | 10.0 | Sovereign | PROJECT ENGINEER | 1.0  | 10.0 | Sovereign | SUPER - JOB | 1.0   | 10.0  | Total |  | 11.0 | 110.5 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Labor Classification      | Number of Employees                                                 | Hours Worked              |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |       |  |      |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | HEAVY-EQUIPMENT OPERATOR  | 4.0                                                                 | 40.5                      |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |       |  |      |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | LABORERS                  | 3.0                                                                 | 30.0                      |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |       |  |      |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | PROJECT ENGINEER          | 1.0                                                                 | 10.0                      |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |       |  |      |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | SUPER - CONSTRUCTION      | 1.0                                                                 | 10.0                      |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |       |  |      |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | PROJECT ENGINEER          | 1.0                                                                 | 10.0                      |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |       |  |      |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | SUPER - JOB               | 1.0                                                                 | 10.0                      |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |       |  |      |       |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           | 11.0                                                                | 110.5                     |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |       |  |      |       |
| <b>EQUIPMENT HOURS</b><br>The following equipment hours were Reported today: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Serial Number</th> <th>Description</th> <th>Idle Hours</th> <th>Operating Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td>10.50</td> <td>0.00</td> </tr> <tr> <td>N/A</td> <td>Exacavtor with Long Stick</td> <td>5.00</td> <td>5.50</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td>4.00</td> <td>6.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td>1.00</td> <td>9.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td>1.00</td> <td>9.50</td> </tr> <tr> <td colspan="2">Total</td> <td>21.50</td> <td>31.00</td> </tr> </tbody> </table> Total operating hours to date: 576.50                                                                                                                    |                           |                                                                     |                           | Serial Number | Description          | Idle Hours          | Operating Hours | N/A       | Bull Dozer               | 10.50 | 0.00 | N/A       | Exacavtor with Long Stick | 5.00 | 5.50 | N/A       | Loader           | 4.00 | 6.50 | N/A       | Mixing Excavator     | 1.00 | 9.50 | N/A       | Mixing Loader    | 1.00 | 9.50 | Total     |             | 21.50 | 31.00 |       |  |      |       |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Description               | Idle Hours                                                          | Operating Hours           |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |       |  |      |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Bull Dozer                | 10.50                                                               | 0.00                      |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |       |  |      |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Exacavtor with Long Stick | 5.00                                                                | 5.50                      |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |       |  |      |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Loader                    | 4.00                                                                | 6.50                      |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |       |  |      |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Mixing Excavator          | 1.00                                                                | 9.50                      |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |       |  |      |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Mixing Loader             | 1.00                                                                | 9.50                      |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |       |  |      |       |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           | 21.50                                                               | 31.00                     |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |       |  |      |       |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br>No accidents reported today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                           |                                                                     |                           |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |       |  |      |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           |                                                                     |                           |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |       |  |      |       |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |                                                                     |                           |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |       |  |      |       |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                           | DATE                                                                | SUPERINTENDENT'S INITIALS |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |       |  |      |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           |                                                                     | DATE                      |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |       |  |      |       |

|                                                                                     |                                                                                                      |                                          |             |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |                                                                                                      | REPORT NUMBER<br>861                     | Page 1 of 3 |
|                                                                                     |                                                                                                      | DATE<br>07 Sep 2012 - Friday             |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |                                                                                                      | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             | WEATHER<br>Weather Caused No Delay<br>Temperature Min 72 °F, Max 85 °F; No Precipitation; 5 MPH Wind |                                          |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench and AMEC. Provided on-site QC and documentation.  
 AMEC - Provided on-site engineering services and oversight of all field QC testing.  
 Moretrench - Excavation and Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
 Penetration of Landfill Liner

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Follow-up Inspection conducted for DFW: Construction of Working Platform.

All imported borrow for backfill mix inspected upon delivery.

Moretrench completed on-site QC testing of slurry being mixed in tanks prior to placement in trench along with on-site QC testing of slurry within the trench. Moretrech and AMEC also conducted on-site QC testing of backfill batches. Samples of backfill batches also collected for off-site QC testing. AMEC provided oversight of all Moretrench field QC testing to confirm testing was completed properly as per project specification and all results were within acceptable ranges. Limited amount of on-site QC testing conducted as excavation activities were only conducted for half a shift.

Bentonite Slurry:

|                          |                |
|--------------------------|----------------|
| Test                     | Time Conducted |
| Viscosity-Initial        | 1126           |
| Viscosity- In trench     | 1240 & 1430    |
| Density- Initial         | 1130           |
| Density- In trench       | 1245 & 1434    |
| Filtrate Loss- Initial   | 1200           |
| Filtrate Loss- In trench | 1316 & 1504    |
| pH- Initial              | 1134           |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Soil-Bentonite Backfill:

|         |                |
|---------|----------------|
| Test    | Time Conducted |
| Slump   | 1300 & 1330    |
| Density | 1310 & 1345    |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Samples collected of Soil-Bentonite Backfill for off-site analysis of Permeability, Gradation, and Materials Fines Content. AMEC conducted on-site Materials Fines Content for backfill batch 29. Fines Content % of batch 29 was 51%.

Backfill Slope soundings conducted at stations at the start and end of the work shift.  
 Current trench profile emailed under seperate cover to USACE representatives.

**Did anything develop that may lead to a Change Order/Claim ?**  
 No developments that may lead to a Change Order during the day.

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    | REPORT NUMBER<br>861                     | Page 2 of 3 |         |                    |      |       |      |       |      |       |      |       |      |       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|------------------------------------------|-------------|---------|--------------------|------|-------|------|-------|------|-------|------|-------|------|-------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    | DATE<br>07 Sep 2012 - Friday             |             |         |                    |      |       |      |       |      |       |      |       |      |       |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                    | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |         |                    |      |       |      |       |      |       |      |       |      |       |
| <p><b>Were there any Delays in Work Progress today?</b><br/>         Minor delays in work progress during the day. Excavation activities did not start until 1000 as a new bushings were installed the bottom of the 374 excavator long-stick.</p> <p><b>General Comments:</b><br/>         Work Completed During the Day:</p> <p>Sovereign: Provided project oversight and on-site QC of Moretrench and AMEC. Photographed progress of excavation and backfill mixing as trench advanced. Photo IDs: 090712-01 through 090712-05.</p> <p>AMEC: Principal Geotechnical Engineer provided oversight of on-site QC testing performed by Moretrench and trench exvcavation activities. Principal Geotechnical Engineer made all final determination of trench depths and if refusal criteria had been met at each 10 foot station. Principal Geotechnical Engineer completed on site Fine Content % of backfill mixes.</p> <p>Moretrench: Continued mixing slurry and filling tanks. Continued backfill mixing with excavator. Completed excavation of trench from 6+60 to 7+10. Backfilled trench with 1 1/2 batches of backfill. Backfill complete up to station 5+80. Backfill quantities summarized on Trench Profile submitted under seperate cover the USACE representatives. Performed all required on-site QC testing. General site clean-up at end of the shift.</p> <p>Final Trench Depths at 10 foot stations during the day:</p> <table border="1"> <thead> <tr> <th>Station</th> <th>Final Trench Depth</th> </tr> </thead> <tbody> <tr> <td>6+70</td> <td>45.8'</td> </tr> <tr> <td>6+80</td> <td>45.2'</td> </tr> <tr> <td>6+90</td> <td>44.4'</td> </tr> <tr> <td>7+00</td> <td>44.0'</td> </tr> <tr> <td>7+10</td> <td>43.0'</td> </tr> </tbody> </table> <p>Materials Brought on Site:</p> <p>350 cys of Imported Clay Borrow for backfill mix (W.J. Graves)</p> <p>Equipment Brought on Site:</p> <p>No additional equipment brought on-site during the day.</p> <p>Additional Notes:</p> <p>Bill Brandon (US EPA) on site during in the late afternoon. Given project status update by Sovereign and AMEC Principal Engineer. No major comments or concerns noted from EPA representative.</p> <p><b>Verbal Instructions given by Government:</b><br/>         Randy Lecuyer and Marcus Madison (USACE Construction Representative) on site during the morning. Conducted walk-through and inspection of the site.</p> <p>No verbal instructions given by the government during the day.</p> <p><b>Safety Inspection / Safety Meetings:</b><br/>         Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviuewed prior to start of work activties.</p> |                    |                                          |             | Station | Final Trench Depth | 6+70 | 45.8' | 6+80 | 45.2' | 6+90 | 44.4' | 7+00 | 44.0' | 7+10 | 43.0' |
| Station                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Final Trench Depth |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |
| 6+70                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 45.8'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |
| 6+80                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 45.2'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |
| 6+90                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 44.4'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |
| 7+00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 44.0'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |
| 7+10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 43.0'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |
| Empty space for additional notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           | REPORT NUMBER<br>861 <span style="float: right;">Page 3 of 3</span> |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------------------------------------------|--------------------|---------------|----------------------|------------------------|--------------------|-----------|--------------------------|-------|------|-----------|---------------------------|------|------|-----------|------------------|------|------|-----------|----------------------|------|------|-----------|------------------|------|------|-----------|-------------|-------|-------|---------------------------------------|--|-------|-------|-------------------------------------|--|--|-------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                           | DATE<br>07 Sep 2012 - Friday                                        |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| <b>QC REQUIREMENTS</b><br>No QC requirements were completed today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br>No QC Deficiency items were issued today<br>No Deficiency items were corrected today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br>No contractors had their first or last day on site today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| <b>LABOR HOURS</b><br>The following labor hours were Reported today: <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">4.0</td> <td style="text-align: right;">40.5</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">3.0</td> <td style="text-align: right;">30.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td>Sovereign</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td colspan="2"></td> <td style="text-align: right; border-top: 1px solid black;">Total</td> <td style="text-align: right; border-top: 1px solid black;">11.0</td> </tr> <tr> <td colspan="2">Total hours worked to date: 2,451.8</td> <td></td> <td style="text-align: right; border-top: 1px solid black;">110.5</td> </tr> </tbody> </table> |                           |                                                                     |                    | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 4.0   | 40.5 | Moretrech | LABORERS                  | 3.0  | 30.0 | Moretrech | PROJECT ENGINEER | 1.0  | 10.0 | Moretrech | SUPER - CONSTRUCTION | 1.0  | 10.0 | Sovereign | PROJECT ENGINEER | 1.0  | 10.0 | Sovereign | SUPER - JOB | 1.0   | 10.0  |                                       |  | Total | 11.0  | Total hours worked to date: 2,451.8 |  |  | 110.5 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Labor Classification      | Number of<br>Employees                                              | Hours<br>Worked    |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | HEAVY-EQUIPMENT OPERATOR  | 4.0                                                                 | 40.5               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | LABORERS                  | 3.0                                                                 | 30.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | PROJECT ENGINEER          | 1.0                                                                 | 10.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | SUPER - CONSTRUCTION      | 1.0                                                                 | 10.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | PROJECT ENGINEER          | 1.0                                                                 | 10.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | SUPER - JOB               | 1.0                                                                 | 10.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           | Total                                                               | 11.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| Total hours worked to date: 2,451.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |                                                                     | 110.5              |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| <b>EQUIPMENT HOURS</b><br>The following equipment hours were Reported today: <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle<br/>Hours</th> <th style="text-align: right;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">10.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Exacavtor with Long Stick</td> <td style="text-align: right;">3.50</td> <td style="text-align: right;">7.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">4.00</td> <td style="text-align: right;">6.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">9.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">9.50</td> </tr> <tr> <td colspan="2"></td> <td style="text-align: right; border-top: 1px solid black;">Total</td> <td style="text-align: right; border-top: 1px solid black;">20.00</td> </tr> <tr> <td colspan="2">Total operating hours to date: 609.00</td> <td></td> <td style="text-align: right; border-top: 1px solid black;">32.50</td> </tr> </tbody> </table>                                                                                                                                                                          |                           |                                                                     |                    | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A       | Bull Dozer               | 10.50 | 0.00 | N/A       | Exacavtor with Long Stick | 3.50 | 7.00 | N/A       | Loader           | 4.00 | 6.50 | N/A       | Mixing Excavator     | 1.00 | 9.50 | N/A       | Mixing Loader    | 1.00 | 9.50 |           |             | Total | 20.00 | Total operating hours to date: 609.00 |  |       | 32.50 |                                     |  |  |       |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Description               | Idle<br>Hours                                                       | Operating<br>Hours |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Bull Dozer                | 10.50                                                               | 0.00               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Exacavtor with Long Stick | 3.50                                                                | 7.00               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Loader                    | 4.00                                                                | 6.50               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Mixing Excavator          | 1.00                                                                | 9.50               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Mixing Loader             | 1.00                                                                | 9.50               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           | Total                                                               | 20.00              |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| Total operating hours to date: 609.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           |                                                                     | 32.50              |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br>No accidents reported today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | DATE                      | SUPERINTENDENT'S INITIALS                                           | DATE               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |           |             |       |       |                                       |  |       |       |                                     |  |  |       |

|                                                                                     |                                                                                                         |                                          |             |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |                                                                                                         | REPORT NUMBER<br>864                     | Page 1 of 3 |
|                                                                                     |                                                                                                         | DATE<br>10 Sep 2012 - Monday             |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |                                                                                                         | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             | WEATHER<br>Weather Caused No Delay<br>Temperature Min 60 °F, Max 0 °F; 73 IN Precipitation; 10 MPH Wind |                                          |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench and AMEC. Provided on-site QC and documentation.  
 AMEC - Provided on-site engineering services and oversight of all field QC testing.  
 Moretrench - Excavation and Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
 Penetration of Landfill Liner

**Quality Control Inspections and Activities (List by Feature of Work)**  
 All imported borrow for backfill mix inspected upon delivery.

Moretrench completed on-site QC testing of slurry being mixed in tanks prior to placement in trench along with on-site QC testing of slurry within the trench. Moretrech and AMEC also conducted on-site QC testing of backfill batches. Samples of backfill batches also collected for off-site QC testing. AMEC provided oversight of all Moretrench field QC testing to confirm testing was completed properly as per project specification and all results were within acceptable ranges.  
 Bentonite Slurry:

|                          |                   |
|--------------------------|-------------------|
| Test                     | Time Conducted    |
| Viscosity-Initial        | 0955 & 135        |
| Viscosity- In trench     | 1030, 1205 & 1410 |
| Density- Initial         | 1000 & 1338       |
| Density- In trench       | 1034, 1215 & 1416 |
| Filtrate Loss- Initial   | 1034 & 1408       |
| Filtrate Loss- In trench | 1105, 1243 & 1449 |
| pH- Initial              | 1002 & 1345       |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Soil-Bentonite Backfill:

|         |                   |
|---------|-------------------|
| Test    | Time Conducted    |
| Slump   | 1100, 1313 & 1512 |
| Density | 1114, 1345 & 1532 |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Samples collected of Soil-Bentonite Backfill for off-site analysis of Permeability, Gradation, and Materials Fines Content.

Backfill Slope soundings conducted at stations at the start and end of the work shift.  
 Current trench profile emailed under seperate cover to USACE representatives.

**Did anything develop that may lead to a Change Order/Claim ?**  
 No developments that may lead to a Change Order during the day.

**Were there any Delays in Work Progress today?**  
 Minor delays in work progress during the day. Excavation activities did not ceased at 1630 to inspect top bin of stick cylinder of the 374 excavator. Bushings seem to be worn and may be repalced the following morning.

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                    | REPORT NUMBER<br>864                     | Page 2 of 3 |         |                    |      |       |      |       |      |       |      |       |      |       |      |      |      |      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|------------------------------------------|-------------|---------|--------------------|------|-------|------|-------|------|-------|------|-------|------|-------|------|------|------|------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                    | DATE<br>10 Sep 2012 - Monday             |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |      |      |      |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                    | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |      |      |      |
| <p><b>General Comments:</b></p> <p>Work Completed During the Day:</p> <p>Sovereign: Provided project oversight and on-site QC of Moretrench and AMEC. Photographed progress of excavation and backfill mixing as trench advanced. Photo IDs: 091012-01 through 091012-05.</p> <p>AMEC: Geotechnical Engineer provided oversight of on-site QC testing performed by Moretrench and trench exvcavation activities. Geotechnical Engineer made all final determination of trench depths and if refusal criteria had been met at each 10 foot station. Geotechnical Engineer completed on site Fine Content % of backfill mixes.</p> <p>Moretrench: Continued mixing slurry and filling tanks. Continued backfill mixing with excavator. Completed excavation of trench from 7+10 to 7+80. Backfilled trench with 3 1/2 batches of backfill. Backfill complete up to station 6+60. Backfill quantities summarized on Trench Profile submitted under seperate cover the USACE representatives. Performed all required on-site QC testing. General site clean-up at end of the shift.</p> <p>Final Trench Depths at 10 foot stations during the day:</p> <table border="1"> <thead> <tr> <th>Station</th> <th>Final Trench Depth</th> </tr> </thead> <tbody> <tr><td>7+20</td><td>43.2'</td></tr> <tr><td>7+30</td><td>39.1'</td></tr> <tr><td>7+40</td><td>38.7'</td></tr> <tr><td>7+50</td><td>38.8'</td></tr> <tr><td>7+60</td><td>38.0'</td></tr> <tr><td>7+70</td><td>38.0</td></tr> <tr><td>7+80</td><td>38.9</td></tr> </tbody> </table> <p>Materials Brought on Site:</p> <p>175 cys of Imported Clay Borrow for backfill mix (W.J. Graves)</p> <p>Equipment Brought on Site:</p> <p>No additional equipment brought on-site during the day.</p> <p><b>Verbal Instructions given by Government:</b></p> <p>Marcus Madison (USACE Construction Representative), Zach Mothershed (USACE Project Eng.) and Christine Johnson (USACE Construction Department) on site during the day. Conducted walk-through and inspection of the site.</p> <p>No verbal instructions given by the government during the day.</p> <p><b>Safety Inspection / Safety Meetings:</b></p> <p>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviued prior to start of work activties.</p> |                    |                                          |             | Station | Final Trench Depth | 7+20 | 43.2' | 7+30 | 39.1' | 7+40 | 38.7' | 7+50 | 38.8' | 7+60 | 38.0' | 7+70 | 38.0 | 7+80 | 38.9 |
| Station                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Final Trench Depth |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |      |      |      |
| 7+20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 43.2'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |      |      |      |
| 7+30                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 39.1'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |      |      |      |
| 7+40                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 38.7'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |      |      |      |
| 7+50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 38.8'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |      |      |      |
| 7+60                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 38.0'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |      |      |      |
| 7+70                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 38.0               |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |      |      |      |
| 7+80                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 38.9               |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |      |      |      |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |      |      |      |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |      |      |      |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |      |      |      |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |      |      |      |
| Empty section for additional notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |      |       |      |      |      |      |



| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           | REPORT NUMBER<br>864 <span style="float: right;">Page 3 of 3</span> |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------------------------------------------|--------------------|---------------|----------------------|------------------------|--------------------|-----------|--------------------------|-------|------|-----------|---------------------------|------|------|-----------|------------------|------|------|-----------|----------------------|------|------|-----------|------------------|------|------|---------------------------------------|-------------|-------------|-------|-------------------------------------|--|------------|-------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                           | DATE<br>10 Sep 2012 - Monday                                        |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">4.0</td> <td style="text-align: right;">40.5</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">3.0</td> <td style="text-align: right;">30.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td>Sovereign</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total hours worked to date: 2,562.3</td> <td style="text-align: right; border-top: 1px solid black;">Total 11.0</td> <td style="text-align: right; border-top: 1px solid black;">110.5</td> </tr> </tbody> </table> |                           |                                                                     |                    | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 4.0   | 40.5 | Moretrech | LABORERS                  | 3.0  | 30.0 | Moretrech | PROJECT ENGINEER | 1.0  | 10.0 | Moretrech | SUPER - CONSTRUCTION | 1.0  | 10.0 | Sovereign | PROJECT ENGINEER | 1.0  | 10.0 | Sovereign                             | SUPER - JOB | 1.0         | 10.0  | Total hours worked to date: 2,562.3 |  | Total 11.0 | 110.5 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Labor Classification      | Number of<br>Employees                                              | Hours<br>Worked    |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | HEAVY-EQUIPMENT OPERATOR  | 4.0                                                                 | 40.5               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | LABORERS                  | 3.0                                                                 | 30.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | PROJECT ENGINEER          | 1.0                                                                 | 10.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | SUPER - CONSTRUCTION      | 1.0                                                                 | 10.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | PROJECT ENGINEER          | 1.0                                                                 | 10.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | SUPER - JOB               | 1.0                                                                 | 10.0               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Total hours worked to date: 2,562.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           | Total 11.0                                                          | 110.5              |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>EQUIPMENT HOURS</b><br><b>The following equipment hours were Reported today:</b> <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle<br/>Hours</th> <th style="text-align: right;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">10.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Exacavtor with Long Stick</td> <td style="text-align: right;">3.50</td> <td style="text-align: right;">7.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">4.00</td> <td style="text-align: right;">6.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">9.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">9.50</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total operating hours to date: 641.50</td> <td style="text-align: right; border-top: 1px solid black;">Total 20.00</td> <td style="text-align: right; border-top: 1px solid black;">32.50</td> </tr> </tbody> </table>                                                                                                                                                                          |                           |                                                                     |                    | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A       | Bull Dozer               | 10.50 | 0.00 | N/A       | Exacavtor with Long Stick | 3.50 | 7.00 | N/A       | Loader           | 4.00 | 6.50 | N/A       | Mixing Excavator     | 1.00 | 9.50 | N/A       | Mixing Loader    | 1.00 | 9.50 | Total operating hours to date: 641.50 |             | Total 20.00 | 32.50 |                                     |  |            |       |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Description               | Idle<br>Hours                                                       | Operating<br>Hours |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Bull Dozer                | 10.50                                                               | 0.00               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Exacavtor with Long Stick | 3.50                                                                | 7.00               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Loader                    | 4.00                                                                | 6.50               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Mixing Excavator          | 1.00                                                                | 9.50               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Mixing Loader             | 1.00                                                                | 9.50               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Total operating hours to date: 641.50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           | Total 20.00                                                         | 32.50              |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>CONTRACTOR CERTIFICATION</b> <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           |                                                                     |                    |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | DATE                      | SUPERINTENDENT'S INITIALS                                           | DATE               |               |                      |                        |                    |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |

|                                                                                     |                                                                                                       |                                          |             |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |                                                                                                       | REPORT NUMBER<br>865                     | Page 1 of 3 |
|                                                                                     |                                                                                                       | DATE<br>11 Sep 2012 - Tuesday            |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |                                                                                                       | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             | WEATHER<br>Weather Caused No Delay<br>Temperature Min 58 °F, Max 74 °F; No Precipitation; 10 MPH Wind |                                          |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench and AMEC. Provided on-site QC and documentation.  
 AMEC - Provided on-site engineering services and oversight of all field QC testing.  
 Moretrench - Excavation and Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
     Penetration of Landfill Liner  
     Stockpiling Excess Soils

**Quality Control Inspections and Activities (List by Feature of Work)**  
 All imported borrow for backfill mix inspected upon delivery.

Moretrench completed on-site QC testing of slurry being mixed in tanks prior to placement in trench along with on-site QC testing of slurry within the trench. Moretrech and AMEC also conducted on-site QC testing of backfill batches. Samples of backfill batches also collected for off-site QC testing. AMEC provided oversight of all Moretrench field QC testing to confirm testing was completed properly as per project specification and all results were within acceptable ranges. Limited amount of on-site QC testing performed as excavation activites were conducted under a short shift.

Bentonite Slurry:

|                          |                |
|--------------------------|----------------|
| Test                     | Time Conducted |
| Viscosity-Initial        | 1235           |
| Viscosity- In trench     | 1115 & 1430    |
| Density- Initial         | 1240           |
| Density- In trench       | 1121 & 1433    |
| Filtrate Loss- Initial   | 1312           |
| Filtrate Loss- In trench | 1153 & 1504    |
| pH- Initial              | 1243           |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Soil-Bentonite Backfill:

|         |                  |
|---------|------------------|
| Test    | Time Conducted   |
| Slump   | 1015, 1300, 1510 |
| Density | 1045, 1332, 1534 |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Samples collected of Soil-Bentonite Backfill for off-site analysis of Permeability, Gradation, and Materials Fines Content.

Backfill Slope soundings conducted at stations at the start and end of the work shift.  
 Current trench profile emailed under seperate cover to USACE representatives.

**Did anything develop that may lead to a Change Order/Claim ?**  
 No developments that may lead to a Change Order during the day.

**Were there any Delays in Work Progress today?**

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                    | REPORT NUMBER<br>865                     | Page 2 of 3 |         |                    |      |       |      |       |      |       |      |       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|------------------------------------------|-------------|---------|--------------------|------|-------|------|-------|------|-------|------|-------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                    | DATE<br>11 Sep 2012 - Tuesday            |             |         |                    |      |       |      |       |      |       |      |       |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                    | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |         |                    |      |       |      |       |      |       |      |       |
| <p>Minor delays in work progress during the day. Excavation activities did not start until 0830 as Moretrench was waiting for replacement parts for the 374 excavator long-stick to be delivered to site. Moretrench made the determination that excavation activities could be completed without having to change the top stick cylinder bushing resulting in less down time.</p> <p><b>General Comments:</b><br/>         Work Completed During the Day:</p> <p>Sovereign: Provided project oversight and on-site QC of Moretrench and AMEC. Photographed progress of excavation and backfill mixing as trench advanced. Photo IDs: 091112-01 through 091012-02.</p> <p>AMEC: Geotechnical Engineer provided oversight of on-site QC testing performed by Moretrench and trench exvavation activities. Geotechnical Engineer made all final determination of trench depths and if refusal criteria had been met at each 10 foot station. Geotechnical Engineer completed on site Fine Content % of backfill mixes.</p> <p>Moretrench: Continued mixing slurry and filling tanks as needed. Continued backfill mixing with excavator. Completed excavation of trench from 7+80 to 8+20. Backfilled trench with 2 1/2 batches of backfill. Backfill complete up to station 7+00. Backfill quantities summarized on Trench Profile submitted under separte cover the USACE representatives. Performed all required on-site QC testing. Isolated slurry into tnaks 1 and 2 and began cleaning tank 3. General site clean-up at end of the shift.</p> <p>Final Trench Depths at 10 foot stations during the day:</p> <table border="1"> <thead> <tr> <th>Station</th> <th>Final Trench Depth</th> </tr> </thead> <tbody> <tr> <td>7+90</td> <td>37.7'</td> </tr> <tr> <td>8+00</td> <td>39.6'</td> </tr> <tr> <td>8+10</td> <td>39.2'</td> </tr> <tr> <td>8+20</td> <td>39.1'</td> </tr> </tbody> </table> <p>Materials Brought on Site:</p> <p>75 cys of Imported Clay Borrow for backfill mix (W.J. Graves)</p> <p>Equipment Brought on Site:</p> <p>No additional equipment brought on-site during the day.</p> <p>Additional Notes:</p> <p>Bill Brandon with US EPA on site during the day. Give a site walk-through and updated on progress of the project.</p> <p>No major comments or conerns noted.</p> <p><b>Verbal Instructions given by Government:</b><br/>         No verbal instructions given by the government during the day.</p> <p><b>Safety Inspection / Safety Meetings:</b><br/>         Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviuewed prior to start of work activties.</p> |                    |                                          |             | Station | Final Trench Depth | 7+90 | 37.7' | 8+00 | 39.6' | 8+10 | 39.2' | 8+20 | 39.1' |
| Station                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Final Trench Depth |                                          |             |         |                    |      |       |      |       |      |       |      |       |
| 7+90                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 37.7'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |
| 8+00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 39.6'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |
| 8+10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 39.2'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |
| 8+20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 39.1'              |                                          |             |         |                    |      |       |      |       |      |       |      |       |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |
| Empty space for additional notes or comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                    |                                          |             |         |                    |      |       |      |       |      |       |      |       |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           | REPORT NUMBER<br>865 <span style="float: right;">Page 3 of 3</span> |                                   |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------------------------------------------|-----------------------------------|---------------|----------------------|---------------------|-----------------|-----------|--------------------------|-------|------|-----------|---------------------------|------|------|-----------|------------------|------|------|-----------|----------------------|------|------|-----------|------------------|------|------|---------------------------------------|-------------|-------------|-------|-------------------------------------|--|------------|-------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           | DATE<br>11 Sep 2012 - Tuesday                                       |                                   |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                            |                                   |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br>No QC Deficiency items were issued today<br>No Deficiency items were corrected today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           |                                                                     |                                   |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br>No contractors had their first or last day on site today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           |                                                                     |                                   |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>LABOR HOURS</b><br>The following labor hours were Reported today: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of Employees</th> <th style="text-align: right;">Hours Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">4.0</td> <td style="text-align: right;">40.5</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">3.0</td> <td style="text-align: right;">30.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td>Sovereign</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">10.0</td> </tr> <tr> <td colspan="2">Total hours worked to date: 2,672.8</td> <td style="text-align: right;">Total 11.0</td> <td style="text-align: right;">110.5</td> </tr> </tbody> </table> |                           |                                                                     |                                   | Employer      | Labor Classification | Number of Employees | Hours Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 4.0   | 40.5 | Moretrech | LABORERS                  | 3.0  | 30.0 | Moretrech | PROJECT ENGINEER | 1.0  | 10.0 | Moretrech | SUPER - CONSTRUCTION | 1.0  | 10.0 | Sovereign | PROJECT ENGINEER | 1.0  | 10.0 | Sovereign                             | SUPER - JOB | 1.0         | 10.0  | Total hours worked to date: 2,672.8 |  | Total 11.0 | 110.5 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Labor Classification      | Number of Employees                                                 | Hours Worked                      |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | HEAVY-EQUIPMENT OPERATOR  | 4.0                                                                 | 40.5                              |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | LABORERS                  | 3.0                                                                 | 30.0                              |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | PROJECT ENGINEER          | 1.0                                                                 | 10.0                              |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | SUPER - CONSTRUCTION      | 1.0                                                                 | 10.0                              |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | PROJECT ENGINEER          | 1.0                                                                 | 10.0                              |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | SUPER - JOB               | 1.0                                                                 | 10.0                              |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Total hours worked to date: 2,672.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           | Total 11.0                                                          | 110.5                             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>EQUIPMENT HOURS</b><br>The following equipment hours were Reported today: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle Hours</th> <th style="text-align: right;">Operating Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">10.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Exacavtor with Long Stick</td> <td style="text-align: right;">3.50</td> <td style="text-align: right;">7.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">4.00</td> <td style="text-align: right;">6.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">9.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">9.50</td> </tr> <tr> <td colspan="2">Total operating hours to date: 674.00</td> <td style="text-align: right;">Total 20.00</td> <td style="text-align: right;">32.50</td> </tr> </tbody> </table>                                                                                                                                                                          |                           |                                                                     |                                   | Serial Number | Description          | Idle Hours          | Operating Hours | N/A       | Bull Dozer               | 10.50 | 0.00 | N/A       | Exacavtor with Long Stick | 3.50 | 7.00 | N/A       | Loader           | 4.00 | 6.50 | N/A       | Mixing Excavator     | 1.00 | 9.50 | N/A       | Mixing Loader    | 1.00 | 9.50 | Total operating hours to date: 674.00 |             | Total 20.00 | 32.50 |                                     |  |            |       |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Description               | Idle Hours                                                          | Operating Hours                   |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Bull Dozer                | 10.50                                                               | 0.00                              |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Exacavtor with Long Stick | 3.50                                                                | 7.00                              |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Loader                    | 4.00                                                                | 6.50                              |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Mixing Excavator          | 1.00                                                                | 9.50                              |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Mixing Loader             | 1.00                                                                | 9.50                              |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| Total operating hours to date: 674.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           | Total 20.00                                                         | 32.50                             |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br>No accidents reported today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                           |                                                                     |                                   |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           |                                                                     |                                   |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           |                                                                     |                                   |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                           | DATE                                                                | SUPERINTENDENT'S INITIALS<br>DATE |               |                      |                     |                 |           |                          |       |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |      |      |                                       |             |             |       |                                     |  |            |       |

|                                                                                     |  |                                                                                                      |             |
|-------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |  | REPORT NUMBER<br>866                                                                                 | Page 1 of 3 |
|                                                                                     |  | DATE<br>12 Sep 2012 - Wednesday                                                                      |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |  | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                             |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             |  | WEATHER<br>Weather Caused No Delay<br>Temperature Min 62 °F, Max 80 °F; No Precipitation; 5 MPH Wind |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench and AMEC. Provided on-site QC and documentation.  
 AMEC - Provided on-site engineering services and oversight of all field QC testing.  
 Moretrench - Excavation and Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
 Penetration of Landfill Liner  
 Stockpiling Excess Soils

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Moretrech and AMEC also conducted on-site QC testing of backfill batches. Samples of backfill batches also collected for off-site QC testing. AMEC provided oversight of all Moretrench field QC testing to confirm testing was completed properly as per project specification and all results were within acceptable ranges. Moretrench did not conduct on-site QC testing of slurry as no additional slurry was added to the trench during the day and excavation activities out to final station 8+50 were completed by 1200.

Soil-Bentonite Backfill:

|         |                |
|---------|----------------|
| Test    | Time Conducted |
| Slump   | 1300 & 1330    |
| Density | 1318 & 1335    |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Samples collected of Soil-Bentonite Backfill for off-site analysis of Permeability, Gradation, and Materials Fines Content. AMEC conducted Materials Fines Content on backfill mix batches 36 through 38. Average Fines content of the three batches was 48%.

Completed trench profile emailed under seperate cover to USACE representatives.

**Did anything develop that may lead to a Change Order/Claim?**  
 No developments that may lead to a Change Order during the day.

**Were there any Delays in Work Progress today?**  
 No delays in work progress during the day.

**General Comments:**  
 Work Completed During the Day:

Sovereign: Provided project oversight and on-site QC of Moretrench and AMEC. Photographed progress of excavation and backfill mixing as trench advanced. Photo IDs: 091212-01 through 091212-04.

AMEC: Geotechnical Engineer provided oversight of on-site QC testing performed by Moretrench and trench exvcavation activities. Geotechnical Engineer made all final determination of trench depths and if refusal criteria had been met at each 10 foot station. Geotechnical Engineer completed on site Fine Content % of backfill mixes.

Moretrench: Continued backfill mixing with excavator. Completed excavation of trench from 8+20 to 8+50 by 1200. Backfilled trench with 1 1/2 batches of backfill. Backfill complete up to station 7+60. Backfill quantities summarized on Trench Profile submitted under seperate cover the USACE representatives. Performed all required on-site QC testing. Isolated Slurry into Tank 2. Began cleaning Tank 1 and continued cleaning Tank 2.

Final Trench Depths at 10 foot stations during the day:

|                                                                                     |  |                                                                     |  |
|-------------------------------------------------------------------------------------|--|---------------------------------------------------------------------|--|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |  | REPORT NUMBER<br>866 <span style="float: right;">Page 2 of 3</span> |  |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |  | DATE<br>12 Sep 2012 - Wednesday                                     |  |
| CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                            |  |                                                                     |  |

|         |                    |  |
|---------|--------------------|--|
| Station | Final Trench Depth |  |
| 8+30    | 39.1'              |  |
| 8+40    | 38.5'              |  |
| 8+50    | 39.4'              |  |

Materials Brought on Site:

No new material brought on site during the day.

Equipment Brought on Site:

No additional equipment brought on-site during the day.

Additional Notes:

Randy LeCuyer (USACE Construction Rep.) on site during the morning. Given a site walk-through and updated on progress of the project. Dissussed site restoration plan that was requested by the USACE Ecologist and determined that the entire area to be restored was a flat dry area and the warmseason grass mix requested by the USACE Ecologist would be used. In addition no top soil/loam would be used. The sand soil from the existing stockpile on site would be used instead removing all rocks greater than 6 inches. Further details to be discussed in the Preparatory Meeting for DFW: Site Restoration.

No other major comments or concerns noted.

MassDEP on site during the afternoon. Given a site walk-through and updated on progress of the project.

No major comments or concerns noted.

**Verbal Instructions given by Government:**

No verbal instructions given by the government during the day.

**Safety Inspection / Safety Meetings:**

Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviuewed prior to start of work activties.

|                                                              |                                                         |
|--------------------------------------------------------------|---------------------------------------------------------|
| <b>PREP/INITIAL DATES</b>                                    | (Preparatory and initial dates held and advance notice) |
| <b>No preparatory or initial inspections were held today</b> |                                                         |

|                                                     |
|-----------------------------------------------------|
| <b>ACTIVITY START/FINISH</b>                        |
| <b>No activities were started or finished today</b> |

|                                                |
|------------------------------------------------|
| <b>QC REQUIREMENTS</b>                         |
| <b>No QC requirements were completed today</b> |

|                                                 |                                                                                    |
|-------------------------------------------------|------------------------------------------------------------------------------------|
| <b>QA/QC DEFICIENCY</b>                         | (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected) |
| <b>No QC Deficiency items were issued today</b> |                                                                                    |
| <b>No Deficiency items were corrected today</b> |                                                                                    |

|                                                                 |                                                         |
|-----------------------------------------------------------------|---------------------------------------------------------|
| <b>CONTRACTORS ON SITE</b>                                      | (Report first and/or last day contractors were on site) |
| <b>No contractors had their first or last day on site today</b> |                                                         |

|                                                       |                             |                            |                     |
|-------------------------------------------------------|-----------------------------|----------------------------|---------------------|
| <b>LABOR HOURS</b>                                    |                             |                            |                     |
| <b>The following labor hours were Reported today:</b> |                             |                            |                     |
| <u>Employer</u>                                       | <u>Labor Classification</u> | <u>Number of Employees</u> | <u>Hours Worked</u> |
| Moretrech                                             | HEAVY-EQUIPMENT OPERATOR    | 4.0                        | 32.5                |
| Moretrech                                             | LABORERS                    | 3.0                        | 24.0                |
| Moretrech                                             | PROJECT ENGINEER            | 1.0                        | 8.0                 |

|                                                                                                                                                                                                                                                                                                                       |                                                                            |                                          |                                  |             |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|------------------------------------------|----------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                   |                                                                            | REPORT NUMBER<br>866                     |                                  | Page 3 of 3 |
|                                                                                                                                                                                                                                                                                                                       |                                                                            | DATE<br>12 Sep 2012 - Wednesday          |                                  |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                      |                                                                            | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |                                  |             |
| Moretrech<br>Sovereign<br>Sovereign<br>Sovereign<br>Total hours worked to date: 2,766.3                                                                                                                                                                                                                               | SUPER - CONSTRUCTION<br>PROJECT ENGINEER<br>PROJECT MANAGER<br>SUPER - JOB | 1.0<br>1.0<br>1.0<br>1.0<br>12.0         | 8.0<br>8.0<br>5.0<br>8.0<br>93.5 |             |
| <b>EQUIPMENT HOURS</b><br><b>No equipment hours were Reported today</b><br>Total operating hours to date: 674.00                                                                                                                                                                                                      |                                                                            |                                          |                                  |             |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                  |                                                                            |                                          |                                  |             |
| <div style="height: 500px;"></div>                                                                                                                                                                                                                                                                                    |                                                                            |                                          |                                  |             |
| CONTRACTOR CERTIFICATION <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b> |                                                                            |                                          |                                  |             |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                         |                                                                            | DATE                                     | SUPERINTENDENT'S INITIALS        |             |
|                                                                                                                                                                                                                                                                                                                       |                                                                            |                                          |                                  |             |

|                                                                                     |  |                                                                                                      |             |
|-------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |  | REPORT NUMBER<br>867                                                                                 | Page 1 of 3 |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |  | DATE<br>13 Sep 2012 - Thursday                                                                       |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             |  | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                             |             |
|                                                                                     |  | WEATHER<br>Weather Caused No Delay<br>Temperature Min 62 °F, Max 80 °F; No Precipitation; 5 MPH Wind |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench and AMEC. Provided on-site QC and documentation.  
 AMEC - Provided on-site engineering services and oversight of all field QC testing.  
 Moretrench - Excavation and Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
       Stockpiling Excess Soils  
       Site Restoration / Demobilization

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Moretrench and AMEC conducted on-site QC testing of backfill batches. Samples of backfill batches also collected for off-site QC testing.  
 AMEC provided oversight of all Moretrench field QC testing to confirm testing was completed properly as per project specification and all results were within acceptable ranges.  
 Soil-Bentonite Backfill:

|         |                   |
|---------|-------------------|
| Test    | Time Conducted    |
| Slump   | 0900, 1130 & 1413 |
| Density | 0920, 1135 & 1435 |

All results of on-site QC tests were emailed under seperate cover to USACE representatives.

Samples collected of Soil-Bentonite Backfill for off-site analysis of Permeability, Gradation, and Materials Fines Content.  
 AMEC conducted Materials Fines Content on backfill mix batches 39 and 40. Average Fines content of the two batches was 48%.

Completed trench profile emailed under seperate cover to USACE representatives.

**Did anything develop that may lead to a Change Order/Claim?**  
 No developments that may lead to a Change Order during the day.

**Were there any Delays in Work Progress today?**  
 No delays in work progress during the day.

**General Comments:**  
 Work Completed During the Day:

Sovereign: Provided project oversight and on-site QC of Moretrench and AMEC. Photographed progress of excavation and backfill mixing as trench advanced. Photo IDs: 091312-01 through 091312-06.

AMEC: Geotechnical Engineer provided overisght of the completion of trench backfilling activties and completed on site Fine Content % of backfill mixes.

Moretrench: Continued backfill mixing with excavator. Backfilled trench with 2 1/2 batches of backfill. Backfill complete up to station 8+50. Backfill complete for entire barrier wall. Backfill quantities summarized on Trench Profile submitted under seperate cover the USACE representatives. Performed all required on-site QC testing for backfill mixes. Slurry Tanks 1&3 completely cleaned. Broke down slurry hoses along the side of the former trenching area. Removed circulation pumps from all tanks and cleaned and stored on pallets for removal from site. Began disassembling electric boxes from side of Tank 3.

Materials Brought on Site:

No new material brought on site during the day.



| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           | REPORT NUMBER<br>867                     |                 | Page 2 of 3 |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |     |     |           |             |     |     |       |  |      |      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|------------------------------------------|-----------------|-------------|---------------|----------------------|---------------------|-----------------|-----------|--------------------------|------|------|-----------|---------------------------|------|------|-----------|------------------|------|------|-----------|----------------------|------|------|-----------|------------------|-----|-----|-----------|-------------|-----|-----|-------|--|------|------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           | DATE<br>13 Sep 2012 - Thursday           |                 |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |     |     |           |             |     |     |       |  |      |      |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |                 |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |     |     |           |             |     |     |       |  |      |      |
| <p>Equipment Brought on Site:</p> <p>No additional equipment brought on-site during the day.</p> <p>Additional Notes:</p> <p>The last three backfill matches were mixed using 50 pound bags of bentonite as all the supersacks of bentonite had been used. Ninety 50 pound bags were added to each batch for approximately a 1.5% bentonite content.</p> <p>No other major comments or concerns noted.</p> <p><b>Verbal Instructions given by Government:</b></p> <p>No verbal instructions given by the government during the day.</p> <p><b>Safety Inspection / Safety Meetings:</b></p> <p>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's reviewed prior to start of work activities.</p>                                                                                                                                |                           |                                          |                 |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |     |     |           |             |     |     |       |  |      |      |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           |                                          |                 |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |     |     |           |             |     |     |       |  |      |      |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           |                                          |                 |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |     |     |           |             |     |     |       |  |      |      |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           |                                          |                 |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |     |     |           |             |     |     |       |  |      |      |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           |                                          |                 |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |     |     |           |             |     |     |       |  |      |      |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           |                                          |                 |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |     |     |           |             |     |     |       |  |      |      |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table border="1"> <thead> <tr> <th>Employer</th> <th>Labor Classification</th> <th>Number of Employees</th> <th>Hours Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td>4.0</td> <td>32.5</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td>3.0</td> <td>24.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td>Sovereign</td> <td>PROJECT ENGINEER</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td colspan="2">Total</td> <td>11.0</td> <td>88.5</td> </tr> </tbody> </table> <p>Total hours worked to date: 2,854.8</p> |                           |                                          |                 |             | Employer      | Labor Classification | Number of Employees | Hours Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 4.0  | 32.5 | Moretrech | LABORERS                  | 3.0  | 24.0 | Moretrech | PROJECT ENGINEER | 1.0  | 8.0  | Moretrech | SUPER - CONSTRUCTION | 1.0  | 8.0  | Sovereign | PROJECT ENGINEER | 1.0 | 8.0 | Sovereign | SUPER - JOB | 1.0 | 8.0 | Total |  | 11.0 | 88.5 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Labor Classification      | Number of Employees                      | Hours Worked    |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |     |     |           |             |     |     |       |  |      |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | HEAVY-EQUIPMENT OPERATOR  | 4.0                                      | 32.5            |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |     |     |           |             |     |     |       |  |      |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | LABORERS                  | 3.0                                      | 24.0            |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |     |     |           |             |     |     |       |  |      |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | PROJECT ENGINEER          | 1.0                                      | 8.0             |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |     |     |           |             |     |     |       |  |      |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | SUPER - CONSTRUCTION      | 1.0                                      | 8.0             |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |     |     |           |             |     |     |       |  |      |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | PROJECT ENGINEER          | 1.0                                      | 8.0             |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |     |     |           |             |     |     |       |  |      |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | SUPER - JOB               | 1.0                                      | 8.0             |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |     |     |           |             |     |     |       |  |      |      |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           | 11.0                                     | 88.5            |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |     |     |           |             |     |     |       |  |      |      |
| <b>EQUIPMENT HOURS</b><br><b>The following equipment hours were Reported today:</b> <table border="1"> <thead> <tr> <th>Serial Number</th> <th>Description</th> <th>Idle Hours</th> <th>Operating Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td>8.50</td> <td>0.00</td> </tr> <tr> <td>N/A</td> <td>Exacavtor with Long Stick</td> <td>5.00</td> <td>3.50</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td>4.50</td> <td>4.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td>1.00</td> <td>7.50</td> </tr> </tbody> </table>                                                                                                                                                                                                                                                                                                            |                           |                                          |                 |             | Serial Number | Description          | Idle Hours          | Operating Hours | N/A       | Bull Dozer               | 8.50 | 0.00 | N/A       | Exacavtor with Long Stick | 5.00 | 3.50 | N/A       | Loader           | 4.50 | 4.00 | N/A       | Mixing Excavator     | 1.00 | 7.50 |           |                  |     |     |           |             |     |     |       |  |      |      |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Description               | Idle Hours                               | Operating Hours |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |     |     |           |             |     |     |       |  |      |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Bull Dozer                | 8.50                                     | 0.00            |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |     |     |           |             |     |     |       |  |      |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Exacavtor with Long Stick | 5.00                                     | 3.50            |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |     |     |           |             |     |     |       |  |      |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Loader                    | 4.50                                     | 4.00            |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |     |     |           |             |     |     |       |  |      |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Mixing Excavator          | 1.00                                     | 7.50            |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |                  |     |     |           |             |     |     |       |  |      |      |

|                                                                                                                                                                                                                                                                                                                       |               |                                          |                           |             |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|------------------------------------------|---------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                   |               | REPORT NUMBER<br>867                     |                           | Page 3 of 3 |
|                                                                                                                                                                                                                                                                                                                       |               | DATE<br>13 Sep 2012 - Thursday           |                           |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                      |               | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |                           |             |
| N/A                                                                                                                                                                                                                                                                                                                   | Mixing Loader |                                          | 1.00                      | 7.50        |
| Total operating hours to date: 696.50                                                                                                                                                                                                                                                                                 |               | Total                                    | 20.00                     | 22.50       |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                  |               |                                          |                           |             |
|                                                                                                                                                                                                                                                                                                                       |               |                                          |                           |             |
| CONTRACTOR CERTIFICATION <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b> |               |                                          |                           |             |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                         |               | DATE                                     | SUPERINTENDENT'S INITIALS | DATE        |

|                                                                                     |                                                                                                       |                                          |             |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |                                                                                                       | REPORT NUMBER<br>868                     | Page 1 of 2 |
|                                                                                     |                                                                                                       | DATE<br>14 Sep 2012 - Friday             |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |                                                                                                       | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             | WEATHER<br>Weather Caused No Delay<br>Temperature Min 58 °F, Max 48 °F; No Precipitation; 10 MPH Wind |                                          |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.  
 Moretrench - Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
 Stockpiling Excess Soils  
 Site Restoration / Demobilization

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Preparatory Meeting held for D.F.W: Site Restoration / Demobilization.

One sample collected of Low Permability Borrow for off-site anaylsis of hydraulic conductivity.  
 This material will be used to construct the cap of the soil-bentonite wall.

**Did anything develop that may lead to a Change Order/Claim ?**  
 No developments that may lead to a Change Order during the day.

**Were there any Delays in Work Progress today?**  
 No delays in work progress during the day.

**General Comments:**  
 Work Completed During the Day:

Sovereign: Provided project oversight and on-site QC of Moretrench and AMEC. Photographed progress of excavation and backfill mixing as trench advanced. Photo IDs: 091412-01 through 091412-05.

Moretrench: Completed the cleaning of Slurry Tanks 2. Cleaned out Slurry Hoses. Began cutting 4 inch HDPE piping from along the side of the former trenching area. Continued cleaning of circulation pumps from all tanks and storing on pallets for removal from site. Continued disassembling electric boxes from side of Tank 3. Cleaned the CAT 374 excavator and long-stick for removal from site the following week. Spread out materail from along side of the former trench to dry out the excess slurry with the dozer and loader. Started to remove contain berms with the CAT 329 excavator from station 0+00 to approximately 3+00.

Materials Brought on Site:

No new material brought on site during the day.

Equipment Brought on Site:

No additional equipment brought on-site during the day.

Additional Notes:

No other major comments or conerns noted.

**Verbal Instructions given by Government:**  
 No verbal instructions given by the government excpet for those noted during the Preparatory Meeting for D.F.W: Site Restoration / Demobilization.

All instructions noted in 3 Phases Inspection section of RMS.

**Safety Inspection / Safety Meetings:**

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           | REPORT NUMBER<br>868 <span style="float: right;">Page 2 of 2</span> |                           |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------------------------------------------|---------------------------|---------------|----------------------|---------------------|-----------------|-----------|--------------------------|------|------|-----------|---------------------------|------|------|-----------|------------------|------|------|-----------|----------------------|------|------|-----------|---------------|------|------|---------------------------------------|--|-------------|-------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           | DATE<br>14 Sep 2012 - Friday                                        |                           |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                           | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                            |                           |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's reviewed prior to start of work activities.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                           |                                                                     |                           |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>A preparatory inspection was held today for the following feature:</b><br>Site Restoration / Demob.<br><b>No initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           |                                                                     |                           |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |                                                                     |                           |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           |                                                                     |                           |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                           |                                                                     |                           |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           |                                                                     |                           |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of Employees</th> <th style="text-align: right;">Hours Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">4.0</td> <td style="text-align: right;">32.5</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">3.0</td> <td style="text-align: right;">19.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td colspan="2">Total hours worked to date: 2,930.3</td> <td style="text-align: right;">Total 10.0</td> <td style="text-align: right;">75.5</td> </tr> </tbody> </table> |                           |                                                                     |                           | Employer      | Labor Classification | Number of Employees | Hours Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 4.0  | 32.5 | Moretrech | LABORERS                  | 3.0  | 19.0 | Moretrech | PROJECT ENGINEER | 1.0  | 8.0  | Moretrech | SUPER - CONSTRUCTION | 1.0  | 8.0  | Sovereign | SUPER - JOB   | 1.0  | 8.0  | Total hours worked to date: 2,930.3   |  | Total 10.0  | 75.5  |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Labor Classification      | Number of Employees                                                 | Hours Worked              |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | HEAVY-EQUIPMENT OPERATOR  | 4.0                                                                 | 32.5                      |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | LABORERS                  | 3.0                                                                 | 19.0                      |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | PROJECT ENGINEER          | 1.0                                                                 | 8.0                       |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | SUPER - CONSTRUCTION      | 1.0                                                                 | 8.0                       |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | SUPER - JOB               | 1.0                                                                 | 8.0                       |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Total hours worked to date: 2,930.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           | Total 10.0                                                          | 75.5                      |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>EQUIPMENT HOURS</b><br><b>The following equipment hours were Reported today:</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle Hours</th> <th style="text-align: right;">Operating Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">2.00</td> <td style="text-align: right;">6.50</td> </tr> <tr> <td>N/A</td> <td>Excavator with Long Stick</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">4.50</td> <td style="text-align: right;">4.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td style="text-align: right;">3.00</td> <td style="text-align: right;">5.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td style="text-align: right;">2.00</td> <td style="text-align: right;">6.50</td> </tr> <tr> <td colspan="2">Total operating hours to date: 719.00</td> <td style="text-align: right;">Total 20.00</td> <td style="text-align: right;">22.50</td> </tr> </tbody> </table>                              |                           |                                                                     |                           | Serial Number | Description          | Idle Hours          | Operating Hours | N/A       | Bull Dozer               | 2.00 | 6.50 | N/A       | Excavator with Long Stick | 8.50 | 0.00 | N/A       | Loader           | 4.50 | 4.00 | N/A       | Mixing Excavator     | 3.00 | 5.50 | N/A       | Mixing Loader | 2.00 | 6.50 | Total operating hours to date: 719.00 |  | Total 20.00 | 22.50 |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Description               | Idle Hours                                                          | Operating Hours           |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Bull Dozer                | 2.00                                                                | 6.50                      |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Excavator with Long Stick | 8.50                                                                | 0.00                      |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Loader                    | 4.50                                                                | 4.00                      |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Mixing Excavator          | 3.00                                                                | 5.50                      |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Mixing Loader             | 2.00                                                                | 6.50                      |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Total operating hours to date: 719.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           | Total 20.00                                                         | 22.50                     |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           |                                                                     |                           |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           |                                                                     |                           |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>CONTRACTOR CERTIFICATION</b> <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           |                                                                     |                           |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           | DATE                                                                | SUPERINTENDENT'S INITIALS |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           |                                                                     | DATE                      |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                                                                                                      |             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  | REPORT NUMBER<br>871                                                                                 | Page 1 of 2 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  | DATE<br>17 Sep 2012 - Monday                                                                         |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                             |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  | WEATHER<br>Weather Caused No Delay<br>Temperature Min 49 °F, Max 73 °F; No Precipitation; 5 MPH Wind |             |
| <b>QC NARRATIVES</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |                                                                                                      |             |
| <b>Contractor/Subcontractor &amp; Area of Responsibility for work:</b><br>Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.<br>Moretrench - Barrier Wall Construction Contractor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |                                                                                                      |             |
| <b>Activities in Progress (List by Activity Number)</b><br>DFW: Soil-Bentonite Wall Construction<br>Stockpiling Excess Soils<br>Site Restoration / Demobilization                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                                                                                                      |             |
| <b>Quality Control Inspections and Activities (List by Feature of Work)</b><br>Soverign conducted QC inspections of stockpiling of trench spoils with trash.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |                                                                                                      |             |
| <b>Did anything develop that may lead to a Change Order/Claim?</b><br>No developments that may lead to a Change Order during the day.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |                                                                                                      |             |
| <b>Were there any Delays in Work Progress today?</b><br>No delays in work progress during the day.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |                                                                                                      |             |
| <b>General Comments:</b><br>Work Completed During the Day:<br><br>Sovereign: Provided project oversight and on-site QC of Moretrench and AMEC. Photographed progress of excavation and backfill mixing as trench advanced. Photo IDs: 091712-01 through 091712-06.<br><br>Moretrench: Cleaned and disassembled slurry plant and diesel pump. Completed disassembly of electric boxes. Prepared hoses, fittings and junction boxes for removal from site. Continued cutting 4 inch HDPE pipe. Continued to spread out materail from along side of the former trench to dry out the excess slurry with the dozer and loader. Began grading first 400 feet of barrier wall area for proper drainage. Moved trench spoils with trash to stockpiling area.<br><br>Materials Brought on Site:<br><br>No new material brought on site during the day.<br><br>Equipment Brought on Site:<br><br>No additional equipment brought on-site during the day.<br><br>Additional Notes:<br><br>No other major comments or conerns noted. |  |                                                                                                      |             |
| <b>Verbal Instructions given by Government:</b><br>No verbal instructions given by the government during the day.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                                                                                                      |             |
| <b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviuewed prior to start of work activties.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |                                                                                                      |             |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                                                                                                      |             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                                                                                                      |             |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           | REPORT NUMBER<br>871                     |                           | Page 2 of 2 |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|------------------------------------------|---------------------------|-------------|---------------|----------------------|---------------------|-----------------|-----------|--------------------------|------|------|-----------|---------------------------|------|------|-----------|------------------|------|------|-----------|----------------------|------|------|-----------|---------------|------|------|---------------------------------------|--|-------------|-------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           | DATE<br>17 Sep 2012 - Monday             |                           |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                           | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |                           |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>ACTIVITY START/FINISH</b><br>No activities were started or finished today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>QC REQUIREMENTS</b><br>No QC requirements were completed today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br>No QC Deficiency items were issued today<br>No Deficiency items were corrected today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br>No contractors had their first or last day on site today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>LABOR HOURS</b><br>The following labor hours were Reported today: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of Employees</th> <th style="text-align: right;">Hours Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">4.0</td> <td style="text-align: right;">32.5</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">3.0</td> <td style="text-align: right;">24.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td colspan="2">Total hours worked to date: 3,010.8</td> <td style="text-align: right;">Total 10.0</td> <td style="text-align: right;">80.5</td> </tr> </tbody> </table> |                           |                                          |                           |             | Employer      | Labor Classification | Number of Employees | Hours Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 4.0  | 32.5 | Moretrech | LABORERS                  | 3.0  | 24.0 | Moretrech | PROJECT ENGINEER | 1.0  | 8.0  | Moretrech | SUPER - CONSTRUCTION | 1.0  | 8.0  | Sovereign | SUPER - JOB   | 1.0  | 8.0  | Total hours worked to date: 3,010.8   |  | Total 10.0  | 80.5  |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Labor Classification      | Number of Employees                      | Hours Worked              |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | HEAVY-EQUIPMENT OPERATOR  | 4.0                                      | 32.5                      |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | LABORERS                  | 3.0                                      | 24.0                      |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | PROJECT ENGINEER          | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | SUPER - CONSTRUCTION      | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | SUPER - JOB               | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Total hours worked to date: 3,010.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           | Total 10.0                               | 80.5                      |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>EQUIPMENT HOURS</b><br>The following equipment hours were Reported today: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle Hours</th> <th style="text-align: right;">Operating Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">2.00</td> <td style="text-align: right;">6.50</td> </tr> <tr> <td>N/A</td> <td>Exacavtor with Long Stick</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">4.50</td> <td style="text-align: right;">4.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td style="text-align: right;">3.00</td> <td style="text-align: right;">5.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td style="text-align: right;">2.00</td> <td style="text-align: right;">6.50</td> </tr> <tr> <td colspan="2">Total operating hours to date: 741.50</td> <td style="text-align: right;">Total 20.00</td> <td style="text-align: right;">22.50</td> </tr> </tbody> </table>                              |                           |                                          |                           |             | Serial Number | Description          | Idle Hours          | Operating Hours | N/A       | Bull Dozer               | 2.00 | 6.50 | N/A       | Exacavtor with Long Stick | 8.50 | 0.00 | N/A       | Loader           | 4.50 | 4.00 | N/A       | Mixing Excavator     | 3.00 | 5.50 | N/A       | Mixing Loader | 2.00 | 6.50 | Total operating hours to date: 741.50 |  | Total 20.00 | 22.50 |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Description               | Idle Hours                               | Operating Hours           |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Bull Dozer                | 2.00                                     | 6.50                      |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Exacavtor with Long Stick | 8.50                                     | 0.00                      |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Loader                    | 4.50                                     | 4.00                      |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Mixing Excavator          | 3.00                                     | 5.50                      |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Mixing Loader             | 2.00                                     | 6.50                      |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Total operating hours to date: 741.50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           | Total 20.00                              | 22.50                     |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br>No accidents reported today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           | DATE                                     | SUPERINTENDENT'S INITIALS |             | DATE          |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |

|                                                                                     |                                                                                                      |                                          |             |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |                                                                                                      | REPORT NUMBER<br>872                     | Page 1 of 2 |
|                                                                                     |                                                                                                      | DATE<br>18 Sep 2012 - Tuesday            |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |                                                                                                      | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             | WEATHER<br>Weather Caused No Delay<br>Temperature Min 55 °F, Max 70 °F; No Precipitation; 5 MPH Wind |                                          |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.  
 Moretrench - Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
 Stockpiling Excess Soils  
 Site Restoration / Demobilization

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Soverign conducted QC inspections of grading activites.

**Did anything develop that may lead to a Change Order/Claim?**  
 No developments that may lead to a Change Order during the day.

**Were there any Delays in Work Progress today?**  
 No delays in work progress during the day.

**General Comments:**  
 Work Completed During the Day:

Sovereign: Provided project oversight and on-site QC of Moretrench and AMEC. Photographed progress of excavation and backfill mixing as trench advanced. Photo IDs: 091812-01 through 091812-06.

Moretrench: Loaded Moretrench trailer with slurry plant operations equipment for removal from site during the day ( slurry plant, diesel pump, generator, hoses, fittings, submersible pumps, elctrical boxes, fusing machine). Installed silt fence around trech spoil piles. Continued to spread out materail from along side of the former trench to dry out the excess slurry with the dozer and loader. Conitued grading first 400 feet of barrier wall area for proper drainage. Broke apart berms in laydown area with CAT 329. Mixed 1 batch of low permability backfill for cap installation.

Materials Brought on Site:

3 rolls (12 X 350 feet) of Marafi Woven Geotextile Fabric

Equipment Brought on Site:

No additional equipment brought on-site during the day.

Additional Notes:

No other major comments or conerns noted.

**Verbal Instructions given by Government:**  
 No verbal instructions given by the government during the day.

**Safety Inspection / Safety Meetings:**  
 Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviued prior to start of work activties.

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           | REPORT NUMBER<br>872                     |                           | Page 2 of 2 |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |       |       |  |  |  |       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|------------------------------------------|---------------------------|-------------|---------------|----------------------|---------------------|-----------------|-----------|--------------------------|------|------|-----------|---------------------------|------|------|-----------|------------------|------|------|-----------|----------------------|------|------|-----------|---------------|------|------|---------------------------------------|--|-------|-------|--|--|--|-------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                           | DATE<br>18 Sep 2012 - Tuesday            |                           |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |       |       |  |  |  |       |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |                           |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |       |       |  |  |  |       |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |       |       |  |  |  |       |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |       |       |  |  |  |       |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |       |       |  |  |  |       |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |       |       |  |  |  |       |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |       |       |  |  |  |       |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table border="1"> <thead> <tr> <th>Employer</th> <th>Labor Classification</th> <th>Number of Employees</th> <th>Hours Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td>4.0</td> <td>32.5</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td colspan="2">Total hours worked to date: 3,075.3</td> <td>Total</td> <td>8.0</td> </tr> <tr> <td colspan="2"></td> <td></td> <td>64.5</td> </tr> </tbody> </table> |                           |                                          |                           |             | Employer      | Labor Classification | Number of Employees | Hours Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 4.0  | 32.5 | Moretrech | LABORERS                  | 1.0  | 8.0  | Moretrech | PROJECT ENGINEER | 1.0  | 8.0  | Moretrech | SUPER - CONSTRUCTION | 1.0  | 8.0  | Sovereign | SUPER - JOB   | 1.0  | 8.0  | Total hours worked to date: 3,075.3   |  | Total | 8.0   |  |  |  | 64.5  |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Labor Classification      | Number of Employees                      | Hours Worked              |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |       |       |  |  |  |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | HEAVY-EQUIPMENT OPERATOR  | 4.0                                      | 32.5                      |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |       |       |  |  |  |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | LABORERS                  | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |       |       |  |  |  |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | PROJECT ENGINEER          | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |       |       |  |  |  |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | SUPER - CONSTRUCTION      | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |       |       |  |  |  |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | SUPER - JOB               | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |       |       |  |  |  |       |
| Total hours worked to date: 3,075.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           | Total                                    | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |       |       |  |  |  |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                           |                                          | 64.5                      |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |       |       |  |  |  |       |
| <b>EQUIPMENT HOURS</b><br><b>The following equipment hours were Reported today:</b> <table border="1"> <thead> <tr> <th>Serial Number</th> <th>Description</th> <th>Idle Hours</th> <th>Operating Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td>2.00</td> <td>6.50</td> </tr> <tr> <td>N/A</td> <td>Exacavtor with Long Stick</td> <td>8.50</td> <td>0.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td>4.50</td> <td>4.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td>3.00</td> <td>5.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td>2.00</td> <td>6.50</td> </tr> <tr> <td colspan="2">Total operating hours to date: 764.00</td> <td>Total</td> <td>20.00</td> </tr> <tr> <td colspan="2"></td> <td></td> <td>22.50</td> </tr> </tbody> </table>                            |                           |                                          |                           |             | Serial Number | Description          | Idle Hours          | Operating Hours | N/A       | Bull Dozer               | 2.00 | 6.50 | N/A       | Exacavtor with Long Stick | 8.50 | 0.00 | N/A       | Loader           | 4.50 | 4.00 | N/A       | Mixing Excavator     | 3.00 | 5.50 | N/A       | Mixing Loader | 2.00 | 6.50 | Total operating hours to date: 764.00 |  | Total | 20.00 |  |  |  | 22.50 |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Description               | Idle Hours                               | Operating Hours           |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |       |       |  |  |  |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Bull Dozer                | 2.00                                     | 6.50                      |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |       |       |  |  |  |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Exacavtor with Long Stick | 8.50                                     | 0.00                      |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |       |       |  |  |  |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Loader                    | 4.50                                     | 4.00                      |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |       |       |  |  |  |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Mixing Excavator          | 3.00                                     | 5.50                      |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |       |       |  |  |  |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Mixing Loader             | 2.00                                     | 6.50                      |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |       |       |  |  |  |       |
| Total operating hours to date: 764.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           | Total                                    | 20.00                     |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |       |       |  |  |  |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                           |                                          | 22.50                     |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |       |       |  |  |  |       |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |       |       |  |  |  |       |
| <div style="height: 150px;"></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |       |       |  |  |  |       |
| <b>CONTRACTOR CERTIFICATION</b> <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |       |       |  |  |  |       |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           | DATE                                     | SUPERINTENDENT'S INITIALS |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |       |       |  |  |  |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                           |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |       |       |  |  |  |       |



|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                       |                                          |             |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                       | REPORT NUMBER<br>873                     | Page 1 of 2 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                       | DATE<br>19 Sep 2012 - Wednesday          |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                       | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | WEATHER<br>Weather Caused No Delay<br>Temperature Min 48 °F, Max 72 °F; No Precipitation; 10 MPH Wind |                                          |             |
| <b>QC NARRATIVES</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                       |                                          |             |
| <b>Contractor/Subcontractor &amp; Area of Responsibility for work:</b><br>Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.<br>Moretrench - Barrier Wall Construction Contractor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                       |                                          |             |
| <b>Activities in Progress (List by Activity Number)</b><br>DFW: Soil-Bentonite Wall Construction<br>Stockpiling Excess Soils<br>Site Restoration / Demobilization                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                       |                                          |             |
| <b>Quality Control Inspections and Activities (List by Feature of Work)</b><br>Soverign conducted QC inspections of grading and site restoration activites.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                       |                                          |             |
| <b>Did anything develop that may lead to a Change Order/Claim?</b><br>No developments that may lead to a Change Order during the day.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                       |                                          |             |
| <b>Were there any Delays in Work Progress today?</b><br>No delays in work progress during the day.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                       |                                          |             |
| <b>General Comments:</b><br>Work Completed During the Day:<br><br>Sovereign: Provided project oversight and on-site QC of Moretrench.<br><br>Moretrench: Removed the three Adler Tanks from site. Following removal of Adler Tanks area graded to match exsisting grade. Continued to spread out material to dry out excess slurry and soil with dozer and loader. Continued grading work for proper drainage. Excavated new drainage swail to restore as it was removed during trenching activities. Set up small generator to power job trailers. Miscellaneous site clean-up. Mixed 1 batch of low permability backfill for cap installation.<br><br>Materials Brought on Site:<br><br>No new material brought on site during the day.<br><br>Equipment Brought on Site:<br><br>9500W Generator on-site during the day.<br><br>Additional Notes:<br><br>No other major comments or conerns noted. |                                                                                                       |                                          |             |
| <b>Verbal Instructions given by Government:</b><br>No verbal instructions given by the government during the day.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                       |                                          |             |
| <b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviuewed prior to start of work activties.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                       |                                          |             |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                       |                                          |             |
| Empty space for additional notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                       |                                          |             |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           | REPORT NUMBER<br>873 <div style="text-align: right;">Page 2 of 2</div> |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|------------------------------------------------------------------------|--------------------|---------------|----------------------|------------------------|--------------------|-----------|--------------------------|------|------|-----------|---------------------------|------|------|-----------|------------------|------|------|-----------|----------------------|------|------|-----------|---------------|------|------|---------------------------------------|--|-------------|-------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           | DATE<br>19 Sep 2012 - Wednesday                                        |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>ACTIVITY START/FINISH</b><br>No activities were started or finished today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                               |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>QC REQUIREMENTS</b><br>No QC requirements were completed today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                           |                                                                        |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br>No QC Deficiency items were issued today<br>No Deficiency items were corrected today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           |                                                                        |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br>No contractors had their first or last day on site today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           |                                                                        |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>LABOR HOURS</b><br>The following labor hours were Reported today: <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">4.0</td> <td style="text-align: right;">32.5</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total hours worked to date: 3,139.8</td> <td style="text-align: right; border-top: 1px solid black;">Total 8.0</td> <td style="text-align: right; border-top: 1px solid black;">64.5</td> </tr> </tbody> </table> |                           |                                                                        |                    | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 4.0  | 32.5 | Moretrech | LABORERS                  | 1.0  | 8.0  | Moretrech | PROJECT ENGINEER | 1.0  | 8.0  | Moretrech | SUPER - CONSTRUCTION | 1.0  | 8.0  | Sovereign | SUPER - JOB   | 1.0  | 8.0  | Total hours worked to date: 3,139.8   |  | Total 8.0   | 64.5  |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Labor Classification      | Number of<br>Employees                                                 | Hours<br>Worked    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | HEAVY-EQUIPMENT OPERATOR  | 4.0                                                                    | 32.5               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | LABORERS                  | 1.0                                                                    | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | PROJECT ENGINEER          | 1.0                                                                    | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | SUPER - CONSTRUCTION      | 1.0                                                                    | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | SUPER - JOB               | 1.0                                                                    | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Total hours worked to date: 3,139.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           | Total 8.0                                                              | 64.5               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>EQUIPMENT HOURS</b><br>The following equipment hours were Reported today: <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle<br/>Hours</th> <th style="text-align: right;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">7.50</td> </tr> <tr> <td>N/A</td> <td>Exacavtor with Long Stick</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">4.50</td> <td style="text-align: right;">4.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td style="text-align: right;">3.00</td> <td style="text-align: right;">5.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">7.50</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total operating hours to date: 788.50</td> <td style="text-align: right; border-top: 1px solid black;">Total 18.00</td> <td style="text-align: right; border-top: 1px solid black;">24.50</td> </tr> </tbody> </table>                            |                           |                                                                        |                    | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A       | Bull Dozer               | 1.00 | 7.50 | N/A       | Exacavtor with Long Stick | 8.50 | 0.00 | N/A       | Loader           | 4.50 | 4.00 | N/A       | Mixing Excavator     | 3.00 | 5.50 | N/A       | Mixing Loader | 1.00 | 7.50 | Total operating hours to date: 788.50 |  | Total 18.00 | 24.50 |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Description               | Idle<br>Hours                                                          | Operating<br>Hours |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Bull Dozer                | 1.00                                                                   | 7.50               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Exacavtor with Long Stick | 8.50                                                                   | 0.00               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Loader                    | 4.50                                                                   | 4.00               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Mixing Excavator          | 3.00                                                                   | 5.50               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Mixing Loader             | 1.00                                                                   | 7.50               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Total operating hours to date: 788.50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                           | Total 18.00                                                            | 24.50              |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br>No accidents reported today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |                                                                        |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           |                                                                        |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                           |                                                                        |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | DATE                      | SUPERINTENDENT'S INITIALS                                              | DATE               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |

|                                                                                     |                                                                                                       |                                          |             |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |                                                                                                       | REPORT NUMBER<br>874                     | Page 1 of 2 |
|                                                                                     |                                                                                                       | DATE<br>20 Sep 2012 - Thursday           |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |                                                                                                       | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             | WEATHER<br>Weather Caused No Delay<br>Temperature Min 45 °F, Max 68 °F; No Precipitation; 10 MPH Wind |                                          |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.  
 Moretrench - Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
 Stockpiling Excess Soils  
 Site Restoration / Demobilization

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Sovereign conducted QC inspections photographic documentation of barrier wall capping activities.

Barrier wall capping activities consisted of excavting to a depth of at least 2.5 feet below grade and at least 2 feet wide. Geotextile woven fabric placed in the trench and pinned down on sides and top every 20 feet and more often as needed. A 36 inch over-lab was used on seams. Following fabric placement 2 feet of low permability backfill was place atop of the fabric in the trench in 1 foot lifts. Each lift was compacted with the excavator bucket. At least 6 inches of sandy soil was placed atop the low permability backfill.

Backfill used was a 50/50 mix of fines/trench cutting and bentonite.

Backfill being excavated from the trench was stockpiled for drying purposes and to be used at a later time for backfill in capping activities.

**Did anything develop that may lead to a Change Order/Claim?**  
 No developments that may lead to a Change Order during the day.

**Were there any Delays in Work Progress today?**  
 No delays in work progress during the day.

**General Comments:**  
 Work Completed During the Day:

Sovereign: Provided project oversight and on-site QC of Moretrench. Conducted photo documentation of grading and barrier wall cap installation. Photograph IDs: 092012-01 through 092012-20

Moretrench: Milton CAT and Central Mass Crane on site and disassembled the long-stick and boom of the 375 CAT excavator. Long-stick and boom loaded onto a trailer and removed from site. Continued to spread out material to dry out excess slurry and soil with a dozer. Continued work on re-building of drainage swale. Completed barrier wall cap from station 0+00 to station 2+40 with use of CAT 329 excavator and loader.

Materials Brought on Site:

No new material brought on site during the day.

Equipment Brought on Site:

New bucket with teeth for use on CAT 329 Excavator.

Additional Notes:

No other major comments or concerns noted.

**Verbal Instructions given by Government:**  
 No verbal instructions given by the government during the day.

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           | REPORT NUMBER<br>874 <span style="float: right;">Page 2 of 2</span> |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------------------------------------------|--------------------|---------------|----------------------|------------------------|--------------------|-----------|--------------------------|------|------|-----------|---------------------------|------|------|-----------|------------------|------|------|-----------|----------------------|------|------|-----------|---------------|------|------|---------------------------------------|--|-------------|-------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           | DATE<br>20 Sep 2012 - Thursday                                      |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviued prior to start of work activties.<br><br>Reviewed lift plan with crane operator and Milton CAT workers prior to disassembly of the long-stick and boom.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">3.0</td> <td style="text-align: right;">25.0</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.5</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.5</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.5</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.5</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total hours worked to date: 3,198.8</td> <td style="text-align: right; border-top: 1px solid black;">Total 7.0</td> <td style="text-align: right; border-top: 1px solid black;">59.0</td> </tr> </tbody> </table> |                           |                                                                     |                    | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 3.0  | 25.0 | Moretrech | LABORERS                  | 1.0  | 8.5  | Moretrech | PROJECT ENGINEER | 1.0  | 8.5  | Moretrech | SUPER - CONSTRUCTION | 1.0  | 8.5  | Sovereign | SUPER - JOB   | 1.0  | 8.5  | Total hours worked to date: 3,198.8   |  | Total 7.0   | 59.0  |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Labor Classification      | Number of<br>Employees                                              | Hours<br>Worked    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | HEAVY-EQUIPMENT OPERATOR  | 3.0                                                                 | 25.0               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | LABORERS                  | 1.0                                                                 | 8.5                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | PROJECT ENGINEER          | 1.0                                                                 | 8.5                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | SUPER - CONSTRUCTION      | 1.0                                                                 | 8.5                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | SUPER - JOB               | 1.0                                                                 | 8.5                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Total hours worked to date: 3,198.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           | Total 7.0                                                           | 59.0               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>EQUIPMENT HOURS</b><br><b>The following equipment hours were Reported today:</b> <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle<br/>Hours</th> <th style="text-align: right;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">8.00</td> </tr> <tr> <td>N/A</td> <td>Exacavtor with Long Stick</td> <td style="text-align: right;">9.00</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">9.00</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">8.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">8.00</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total operating hours to date: 812.50</td> <td style="text-align: right; border-top: 1px solid black;">Total 21.00</td> <td style="text-align: right; border-top: 1px solid black;">24.00</td> </tr> </tbody> </table>                            |                           |                                                                     |                    | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A       | Bull Dozer               | 1.00 | 8.00 | N/A       | Exacavtor with Long Stick | 9.00 | 0.00 | N/A       | Loader           | 9.00 | 0.00 | N/A       | Mixing Excavator     | 1.00 | 8.00 | N/A       | Mixing Loader | 1.00 | 8.00 | Total operating hours to date: 812.50 |  | Total 21.00 | 24.00 |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Description               | Idle<br>Hours                                                       | Operating<br>Hours |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Bull Dozer                | 1.00                                                                | 8.00               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Exacavtor with Long Stick | 9.00                                                                | 0.00               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Loader                    | 9.00                                                                | 0.00               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Mixing Excavator          | 1.00                                                                | 8.00               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Mixing Loader             | 1.00                                                                | 8.00               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Total operating hours to date: 812.50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           | Total 21.00                                                         | 24.00              |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>CONTRACTOR CERTIFICATION</b> <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | DATE                      | SUPERINTENDENT'S INITIALS                                           | DATE               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |

|                                                                                     |                                                                                                       |                                          |             |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |                                                                                                       | REPORT NUMBER<br>875                     | Page 1 of 2 |
|                                                                                     |                                                                                                       | DATE<br>21 Sep 2012 - Friday             |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |                                                                                                       | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             | WEATHER<br>Weather Caused No Delay<br>Temperature Min 48 °F, Max 70 °F; No Precipitation; 10 MPH Wind |                                          |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.  
 Moretrench - Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
 Stockpiling Excess Soils  
 Site Restoration / Demobilization

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Soverign conducted QC inspections of barrier wall capping activites.

Barrier wall capping activites consisted of excavting to a depth of at least 2.5 feet below grade and at least 2 feet wide. Geotextile woven fabric placed in the trench and pinned down on sides and top every 20 feet and more often as needed. A 36 inch over-lab was used on seams. Following fabric placement 2 feet of low permability backfill was place atop of the fabric in the trench in 1 foot lifts. Each lift was compacted with the excavator bucket. At least 6 inches of sandy soil was placed atop the low permability backfill.

Backfill used was a 50/50 mix of fines/trench cutting and bentonite.

Backfill being excavated from the trench was stockpiled for drying purposes and to be used at a later time for backfill in capping activities.

**Did anything develop that may lead to a Change Order/Claim?**  
 No developments that may lead to a Change Order during the day.

**Were there any Delays in Work Progress today?**  
 No delays in work progress during the day.

**General Comments:**  
 Work Completed During the Day:

Sovereign: Provided project oversight and on-site QC of Moretrench.

Moretrench: Continued to spread out material to dry out excess slurry and soil with a dozer. Completed re-building of drainage swale with exsisting stone on site. Completed barrier wall cap from station 2+40 to station 3+00 with use of CAT 329 excavator and loader. Continued finish grading. Miscellaneous site clean-up. Mixed a batch of low permability cap backfill. Bentonite to be added the following work day.

Materials Brought on Site:

No new material brought on site during the day.

Equipment Brought on Site:

No additional equipment brought on site during the day.

Additional Notes:

No other major comments or conerns noted.

**Verbal Instructions given by Government:**  
 No verbal instructions given by the government during the day.

**Safety Inspection / Safety Meetings:**

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                          | REPORT NUMBER<br>875 <span style="float: right;">Page 2 of 2</span> |                    |               |                      |                        |                    |           |                          |      |      |           |                          |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---------------------------------------------------------------------|--------------------|---------------|----------------------|------------------------|--------------------|-----------|--------------------------|------|------|-----------|--------------------------|------|------|-----------|------------------|------|------|-----------|----------------------|------|------|-----------|---------------|------|------|---------------------------------------|--|-------------|-------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          | DATE<br>21 Sep 2012 - Friday                                        |                    |               |                      |                        |                    |           |                          |      |      |           |                          |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                          |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's reviewed prior to start of work activities.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                          |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                          |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                          |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                          |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                          |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                          |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">3.0</td> <td style="text-align: right;">24.0</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total hours worked to date: 3,254.8</td> <td style="text-align: right; border-top: 1px solid black;">Total 7.0</td> <td style="text-align: right; border-top: 1px solid black;">56.0</td> </tr> </tbody> </table> |                          |                                                                     |                    | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 3.0  | 24.0 | Moretrech | LABORERS                 | 1.0  | 8.0  | Moretrech | PROJECT ENGINEER | 1.0  | 8.0  | Moretrech | SUPER - CONSTRUCTION | 1.0  | 8.0  | Sovereign | SUPER - JOB   | 1.0  | 8.0  | Total hours worked to date: 3,254.8   |  | Total 7.0   | 56.0  |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Labor Classification     | Number of<br>Employees                                              | Hours<br>Worked    |               |                      |                        |                    |           |                          |      |      |           |                          |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | HEAVY-EQUIPMENT OPERATOR | 3.0                                                                 | 24.0               |               |                      |                        |                    |           |                          |      |      |           |                          |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | LABORERS                 | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                          |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | PROJECT ENGINEER         | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                          |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | SUPER - CONSTRUCTION     | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                          |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | SUPER - JOB              | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                          |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Total hours worked to date: 3,254.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                          | Total 7.0                                                           | 56.0               |               |                      |                        |                    |           |                          |      |      |           |                          |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>EQUIPMENT HOURS</b><br><b>The following equipment hours were Reported today:</b> <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle<br/>Hours</th> <th style="text-align: right;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">7.50</td> </tr> <tr> <td>N/A</td> <td>Excavtor with Long Stick</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">7.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">7.50</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total operating hours to date: 835.00</td> <td style="text-align: right; border-top: 1px solid black;">Total 20.00</td> <td style="text-align: right; border-top: 1px solid black;">22.50</td> </tr> </tbody> </table>                             |                          |                                                                     |                    | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A       | Bull Dozer               | 1.00 | 7.50 | N/A       | Excavtor with Long Stick | 8.50 | 0.00 | N/A       | Loader           | 8.50 | 0.00 | N/A       | Mixing Excavator     | 1.00 | 7.50 | N/A       | Mixing Loader | 1.00 | 7.50 | Total operating hours to date: 835.00 |  | Total 20.00 | 22.50 |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Description              | Idle<br>Hours                                                       | Operating<br>Hours |               |                      |                        |                    |           |                          |      |      |           |                          |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Bull Dozer               | 1.00                                                                | 7.50               |               |                      |                        |                    |           |                          |      |      |           |                          |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Excavtor with Long Stick | 8.50                                                                | 0.00               |               |                      |                        |                    |           |                          |      |      |           |                          |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Loader                   | 8.50                                                                | 0.00               |               |                      |                        |                    |           |                          |      |      |           |                          |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Mixing Excavator         | 1.00                                                                | 7.50               |               |                      |                        |                    |           |                          |      |      |           |                          |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Mixing Loader            | 1.00                                                                | 7.50               |               |                      |                        |                    |           |                          |      |      |           |                          |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Total operating hours to date: 835.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                          | Total 20.00                                                         | 22.50              |               |                      |                        |                    |           |                          |      |      |           |                          |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                          |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                          |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>CONTRACTOR CERTIFICATION</b> <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                          |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | DATE                     | SUPERINTENDENT'S INITIALS                                           | DATE               |               |                      |                        |                    |           |                          |      |      |           |                          |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |

|                                                                                     |                                                                                                      |                                          |             |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |                                                                                                      | REPORT NUMBER<br>878                     | Page 1 of 2 |
|                                                                                     |                                                                                                      | DATE<br>24 Sep 2012 - Monday             |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |                                                                                                      | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             | WEATHER<br>Weather Caused No Delay<br>Temperature Min 45 °F, Max 68 °F; No Precipitation; 5 MPH Wind |                                          |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.  
 Moretrench - Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
 Stockpiling Excess Soils  
 Site Restoration / Demobilization

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Soverign conducted QC inspections of barrier wall capping activities.

Barrier wall capping activities consisted of excavting to a depth of at least 2.5 feet below grade and at least 2 feet wide. Geotextile woven fabric placed in the trench and pinned down on sides and top every 20 feet and more often as needed. A 36 inch over-lab was used on seams. Following fabric placement 2 feet of low permability backfill was place atop of the fabric in the trench in 1 foot lifts. Each lift was compacted with the excavator bucket. At least 6 inches of sandy soil was placed atop the low permability backfill.

Backfill used was a 50/50 mix of fines/trench cutting and bentonite.

Backfill being excavated from the trench was stockpiled for drying purposes and to be used at a later time for backfill in capping activities.

**Did anything develop that may lead to a Change Order/Claim?**  
 No developments that may lead to a Change Order during the day.

**Were there any Delays in Work Progress today?**  
 No delays in work progress during the day.

**General Comments:**  
 Work Completed During the Day:

Sovereign: Provided project oversight and on-site QC of Moretrench. Conduted photo documentation of capping activities. Photo IDs: 092412-01 through 092412-09

Moretrench: Continued to spread out material to dry out excess slurry and soil with a dozer. Completed barrier wall cap from station 3+00 to station 4+00 with use of CAT 329 excavator and loader. Continued finish grading. Mixed bentonite into cap backfill material that was prepared the previous work day. Miscellaneous site clean-up. Mined into exsisting stockpile with CAT 329 to accumalte sandy soil to be used as top soil instead of loam as requested by the USACE. Removed containment berms from station 4+50 to station 7+00 back to exsisting grade.

CAT 374 Excavator loaded onto a trailer for off-site removal the following day by Milton CAT/CJ Hauling.  
 Counter-weight for the CAT 374 Excavator loaded onto a trailer and removed from site by Milton CAT/CJ Hauling.

Materials Brought on Site:

No new material brought on site during the day.

Equipment Brought on Site:

No additional equipment brought on site during the day.

Additional Notes:

No other major comments or conerns noted.

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           | REPORT NUMBER<br>878 <span style="float: right;">Page 2 of 2</span> |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------------------------------------------|--------------------|---------------|----------------------|------------------------|--------------------|-----------|--------------------------|------|------|-----------|---------------------------|------|------|-----------|------------------|------|------|-----------|----------------------|------|------|-----------|---------------|------|------|---------------------------------------|--|-------------|-------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           | DATE<br>24 Sep 2012 - Monday                                        |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>Verbal Instructions given by Government:</b><br>No verbal instructions given by the government during the day.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviued prior to start of work activties.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">3.0</td> <td style="text-align: right;">24.0</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>PROJECT ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">9.5</td> </tr> <tr> <td colspan="2">Total hours worked to date: 3,312.3</td> <td style="text-align: right;">Total 7.0</td> <td style="text-align: right;">57.5</td> </tr> </tbody> </table> |                           |                                                                     |                    | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 3.0  | 24.0 | Moretrech | LABORERS                  | 1.0  | 8.0  | Moretrech | PROJECT ENGINEER | 1.0  | 8.0  | Moretrech | SUPER - CONSTRUCTION | 1.0  | 8.0  | Sovereign | SUPER - JOB   | 1.0  | 9.5  | Total hours worked to date: 3,312.3   |  | Total 7.0   | 57.5  |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Labor Classification      | Number of<br>Employees                                              | Hours<br>Worked    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | HEAVY-EQUIPMENT OPERATOR  | 3.0                                                                 | 24.0               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | LABORERS                  | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | PROJECT ENGINEER          | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | SUPER - CONSTRUCTION      | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | SUPER - JOB               | 1.0                                                                 | 9.5                |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Total hours worked to date: 3,312.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           | Total 7.0                                                           | 57.5               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>EQUIPMENT HOURS</b><br><b>The following equipment hours were Reported today:</b> <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle<br/>Hours</th> <th style="text-align: right;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">7.50</td> </tr> <tr> <td>N/A</td> <td>Exacavtor with Long Stick</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">7.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">7.50</td> </tr> <tr> <td colspan="2">Total operating hours to date: 857.50</td> <td style="text-align: right;">Total 20.00</td> <td style="text-align: right;">22.50</td> </tr> </tbody> </table>                            |                           |                                                                     |                    | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A       | Bull Dozer               | 1.00 | 7.50 | N/A       | Exacavtor with Long Stick | 8.50 | 0.00 | N/A       | Loader           | 8.50 | 0.00 | N/A       | Mixing Excavator     | 1.00 | 7.50 | N/A       | Mixing Loader | 1.00 | 7.50 | Total operating hours to date: 857.50 |  | Total 20.00 | 22.50 |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Description               | Idle<br>Hours                                                       | Operating<br>Hours |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Bull Dozer                | 1.00                                                                | 7.50               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Exacavtor with Long Stick | 8.50                                                                | 0.00               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Loader                    | 8.50                                                                | 0.00               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Mixing Excavator          | 1.00                                                                | 7.50               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Mixing Loader             | 1.00                                                                | 7.50               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Total operating hours to date: 857.50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           | Total 20.00                                                         | 22.50              |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>CONTRACTOR CERTIFICATION</b> <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | DATE                      | SUPERINTENDENT'S INITIALS                                           | DATE               |               |                      |                        |                    |           |                          |      |      |           |                           |      |      |           |                  |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |



|                                                                                     |                                                                                                       |                                          |             |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |                                                                                                       | REPORT NUMBER<br>879                     | Page 1 of 2 |
|                                                                                     |                                                                                                       | DATE<br>25 Sep 2012 - Tuesday            |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |                                                                                                       | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             | WEATHER<br>Weather Caused No Delay<br>Temperature Min 45 °F, Max 70 °F; No Precipitation; 15 MPH Wind |                                          |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.  
 Moretrench - Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
 Stockpiling Excess Soils  
 Site Restoration / Demobilization

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Soverign conducted QC inspections of barrier wall capping activites.

Barrier wall capping activites consisted of excavting to a depth 2 feet below the landfill liner and at least 2 feet wide. Geotextile woven fabric placed in the trench and pinned down every 20 feet and more often as needed. At least a 24 inch over-lab was used on seams. Following fabric placement 2 feet of low permability backfill was place atop of the fabric in the trench in 1 foot lifts. Each lift was compacted with the excavator bucket. The low permability backfill will be covered with new landfill line followed by a foot of drainage sand and sandy top soil to grade. Landfill liner repair will be conducted following the completion of the entire 2 foot low permability cap.

Backfill used was a 50/50 mix of fines/trench cutting and bentonite.

Backfill being excavated from the trench was stockpiled for drying purposes and to be used at a later time for backfill in capping activities.

**Did anything develop that may lead to a Change Order/Claim ?**  
 No developments that may lead to a Change Order during the day.

**Were there any Delays in Work Progress today?**  
 No delays in work progress during the day.

**General Comments:**  
 Work Completed During the Day:

Sovereign: Provided project oversight and on-site QC of Moretrench. Conduted photo documentation of capping activities. Photo IDs: 092512-01 through 092512-05

Moretrench: Continued to spread out material to dry out excess slurry and soil with a dozer. Completed barrier wall cap from station 4+20 to station 5+30 with use of CAT 329 excavator and loader. Continued finish grading. . Miscellaneous site clean-up.

CAT 374 Excavator removed from site by Milton CAT/CJ Hauling.

Materials Brought on Site:

No new material brought on site during the day.

Equipment Brought on Site:

No additional equipment brought on site during the day.

Additional Notes:

No other major comments or conerns noted.

**Verbal Instructions given by Government:**

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          | REPORT NUMBER<br>879                     |                           | Page 2 of 2 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|------------------------------------------|---------------------------|-------------|---------------|----------------------|---------------------|-----------------|-----------|--------------------------|------|------|-----------|----------|------|------|-----------|----------------------|------|------|-----------|---------------|------|------|---------------------------------------|--|-------------|-------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                          | DATE<br>25 Sep 2012 - Tuesday            |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| No verbal instructions given by the government during the day.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's reviewed prior to start of work activities.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of Employees</th> <th style="text-align: right;">Hours Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">3.0</td> <td style="text-align: right;">24.0</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td colspan="2">Total hours worked to date: 3,360.3</td> <td style="text-align: right;">Total 6.0</td> <td style="text-align: right;">48.0</td> </tr> </tbody> </table> |                          |                                          |                           |             | Employer      | Labor Classification | Number of Employees | Hours Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 3.0  | 24.0 | Moretrech | LABORERS | 1.0  | 8.0  | Moretrech | SUPER - CONSTRUCTION | 1.0  | 8.0  | Sovereign | SUPER - JOB   | 1.0  | 8.0  | Total hours worked to date: 3,360.3   |  | Total 6.0   | 48.0  |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Labor Classification     | Number of Employees                      | Hours Worked              |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | HEAVY-EQUIPMENT OPERATOR | 3.0                                      | 24.0                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | LABORERS                 | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | SUPER - CONSTRUCTION     | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | SUPER - JOB              | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Total hours worked to date: 3,360.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          | Total 6.0                                | 48.0                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>EQUIPMENT HOURS</b><br><b>The following equipment hours were Reported today:</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle Hours</th> <th style="text-align: right;">Operating Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">7.50</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">7.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">7.50</td> </tr> <tr> <td colspan="2">Total operating hours to date: 880.00</td> <td style="text-align: right;">Total 11.50</td> <td style="text-align: right;">22.50</td> </tr> </tbody> </table>                                 |                          |                                          |                           |             | Serial Number | Description          | Idle Hours          | Operating Hours | N/A       | Bull Dozer               | 1.00 | 7.50 | N/A       | Loader   | 8.50 | 0.00 | N/A       | Mixing Excavator     | 1.00 | 7.50 | N/A       | Mixing Loader | 1.00 | 7.50 | Total operating hours to date: 880.00 |  | Total 11.50 | 22.50 |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Description              | Idle Hours                               | Operating Hours           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Bull Dozer               | 1.00                                     | 7.50                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Loader                   | 8.50                                     | 0.00                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Mixing Excavator         | 1.00                                     | 7.50                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Mixing Loader            | 1.00                                     | 7.50                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Total operating hours to date: 880.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          | Total 11.50                              | 22.50                     |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>CONTRACTOR CERTIFICATION</b> <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                          | DATE                                     | SUPERINTENDENT'S INITIALS |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |

|                                                                                     |                                                                                                       |                                          |             |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |                                                                                                       | REPORT NUMBER<br>880                     | Page 1 of 2 |
|                                                                                     |                                                                                                       | DATE<br>26 Sep 2012 - Wednesday          |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |                                                                                                       | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             | WEATHER<br>Weather Caused No Delay<br>Temperature Min 45 °F, Max 70 °F; No Precipitation; 15 MPH Wind |                                          |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.  
 Moretrench - Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
 Stockpiling Excess Soils  
 Site Restoration / Demobilization

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Soverign conducted QC inspections of barrier wall capping activities.

Barrier wall capping activites consisted of excavting to a depth 2 feet below the landfill liner and at least 2 feet wide. Geotextile woven fabric placed in the trench and pinned down every 20 feet and more often as needed. At least a 24 inch over-lab was used on seams. Following fabric placement 2 feet of low permability backfill was place atop of the fabric in the trench in 1 foot lifts. Each lift was compacted with the excavator bucket. The low permability backfill will be covered with new landfill line followed by a foot of drainage sand and sandy top soil to grade. Landfill liner repair will be conducted following the completion of the entire 2 foot low permability cap.

Backfill used was a 50/50 mix of fines/trench cutting and bentonite.

Backfill being excavated from the trench was stockpiled for drying purposes and to be used at a later time for backfill in capping activities.

**Did anything develop that may lead to a Change Order/Claim ?**  
 No developments that may lead to a Change Order during the day.

**Were there any Delays in Work Progress today?**  
 No delays in work progress during the day.

**General Comments:**  
 Work Completed During the Day:

Sovereign: Provided project oversight and on-site QC of Moretrench. Conduted photo documentation of capping activities. Photo IDs: 092612-01 through 092612-06

Moretrench: Continued to spread out material to dry out excess slurry and soil with a dozer. Completed barrier wall cap from station 5+30 to station 8+50 and 4+00 to 4+20 with use of CAT 329 excavator and loader. Enitre barrier wall cap has been completed. Barrier wall cap extend approximately five feet beyond station 8+50. Continued finish grading. . Miscellaneous site clean-up.

Materials Brought on Site:

No new material brought on site during the day.

Equipment Brought on Site:

No additional equipment brought on site during the day.

Additional Notes:

No other major comments or conerns noted.

**Verbal Instructions given by Government:**

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          | REPORT NUMBER<br>880                     |                           | Page 2 of 2 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|------------------------------------------|---------------------------|-------------|---------------|----------------------|---------------------|-----------------|-----------|--------------------------|------|------|-----------|----------|------|------|-----------|----------------------|------|------|-----------|---------------|------|------|---------------------------------------|--|-------------|-------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                          | DATE<br>26 Sep 2012 - Wednesday          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| No verbal instructions given by the government during the day.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's reviewed prior to start of work activities.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of Employees</th> <th style="text-align: right;">Hours Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">3.0</td> <td style="text-align: right;">25.5</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.5</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.5</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.5</td> </tr> <tr> <td colspan="2">Total hours worked to date: 3,411.3</td> <td style="text-align: right;">Total 6.0</td> <td style="text-align: right;">51.0</td> </tr> </tbody> </table> |                          |                                          |                           |             | Employer      | Labor Classification | Number of Employees | Hours Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 3.0  | 25.5 | Moretrech | LABORERS | 1.0  | 8.5  | Moretrech | SUPER - CONSTRUCTION | 1.0  | 8.5  | Sovereign | SUPER - JOB   | 1.0  | 8.5  | Total hours worked to date: 3,411.3   |  | Total 6.0   | 51.0  |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Labor Classification     | Number of Employees                      | Hours Worked              |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | HEAVY-EQUIPMENT OPERATOR | 3.0                                      | 25.5                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | LABORERS                 | 1.0                                      | 8.5                       |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | SUPER - CONSTRUCTION     | 1.0                                      | 8.5                       |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | SUPER - JOB              | 1.0                                      | 8.5                       |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Total hours worked to date: 3,411.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          | Total 6.0                                | 51.0                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>EQUIPMENT HOURS</b><br><b>The following equipment hours were Reported today:</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle Hours</th> <th style="text-align: right;">Operating Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">7.50</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">7.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">7.50</td> </tr> <tr> <td colspan="2">Total operating hours to date: 902.50</td> <td style="text-align: right;">Total 11.50</td> <td style="text-align: right;">22.50</td> </tr> </tbody> </table>                                 |                          |                                          |                           |             | Serial Number | Description          | Idle Hours          | Operating Hours | N/A       | Bull Dozer               | 1.00 | 7.50 | N/A       | Loader   | 8.50 | 0.00 | N/A       | Mixing Excavator     | 1.00 | 7.50 | N/A       | Mixing Loader | 1.00 | 7.50 | Total operating hours to date: 902.50 |  | Total 11.50 | 22.50 |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Description              | Idle Hours                               | Operating Hours           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Bull Dozer               | 1.00                                     | 7.50                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Loader                   | 8.50                                     | 0.00                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Mixing Excavator         | 1.00                                     | 7.50                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Mixing Loader            | 1.00                                     | 7.50                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Total operating hours to date: 902.50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          | Total 11.50                              | 22.50                     |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>CONTRACTOR CERTIFICATION</b> <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                          | DATE                                     | SUPERINTENDENT'S INITIALS |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |

|                                                                                     |  |                                                                                                       |             |
|-------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |  | REPORT NUMBER<br>881                                                                                  | Page 1 of 2 |
|                                                                                     |  | DATE<br>27 Sep 2012 - Thursday                                                                        |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |  | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                              |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             |  | WEATHER<br>Weather Caused No Delay<br>Temperature Min 50 °F, Max 65 °F; No Precipitation; 10 MPH Wind |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.  
 Moretrench - Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
 Stockpiling Excess Soils  
 Site Restoration / Demobilization

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Initial Inspection held for Site Restoration / Demobilization during the morning.

Soverign conducted QC inspections of landfill liner exposing activites conducted by Moretrench.  
 Only minimal damage to the landfill liner on each side of the barrier wall trench was observed.

Photo documentation conducted by Sovereign.

**Did anything develop that may lead to a Change Order/Claim ?**  
 No developments that may lead to a Change Order during the day.

**Were there any Delays in Work Progress today?**  
 No delays in work progress during the day.

**General Comments:**  
 Work Completed During the Day:

Sovereign: Provided project oversight and on-site QC of Moretrench. Conduted photo documentation of capping activities. Photo IDs: 092612-01 through 092612-06

Moretrench: Continued to spread out material to dry out excess slurry and soil with a dozer. Completed barrier wall cap from station 5+30 to station 8+50 and 4+00 to 4+20 with use of CAT 329 excavator and loader. Enitre barrier wall cap has been completed. Barrier wall cap extend approximately five feet beyond station 8+50. Continued finish grading. . Miscellaneous site clean-up. Began exposing landfill liner along trench alignment starting at station 8+50 and reaching station 7+00 by the end of the day.

Materials Brought on Site:

No new material brought on site during the day.

Equipment Brought on Site:

No additional equipment brought on site during the day.

Additional Notes:

Randy LeCuyer requested that the specification on the glue material to be used on the landfill liner repair be added to the landfill liner repair submittal.

**Verbal Instructions given by Government:**  
 Randy LeCuyer requested that the specification on the glue material to be used on the landfill liner repair be added to the landfill liner repair submittal.

Ellen Iorio (USACE Project) asked if another change to the seed mix could be made following correspondence from Mike Penkno (USACE

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                          | REPORT NUMBER<br>881 <span style="float: right;">Page 2 of 2</span> |                 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---------------------------------------------------------------------|-----------------|---------------|----------------------|---------------------|-----------------|-----------|--------------------------|------|------|-----------|----------|------|------|-----------|----------------------|------|------|-----------|---------------|------|------|---------------------------------------|--|-------------|-------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          | DATE<br>27 Sep 2012 - Thursday                                      |                 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                          |                                                                     |                 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Ecologist) noting the NHESP would like to remove Lance-leaved coreopsis from the warm season seed mix to be used on the site. Moretrench and Sovereign are looking into the request.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          |                                                                     |                 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's reviewed prior to start of work activities.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          |                                                                     |                 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory inspections were held today</b><br><b>An initial inspection was held today for the following feature:</b><br>Site Restoration / Demob.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                          |                                                                     |                 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                          |                                                                     |                 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                          |                                                                     |                 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |                                                                     |                 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                          |                                                                     |                 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of Employees</th> <th style="text-align: right;">Hours Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">3.0</td> <td style="text-align: right;">24.0</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total hours worked to date: 3,459.3</td> <td style="text-align: right; border-top: 1px solid black;">Total 6.0</td> <td style="text-align: right; border-top: 1px solid black;">48.0</td> </tr> </tbody> </table> |                          |                                                                     |                 | Employer      | Labor Classification | Number of Employees | Hours Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 3.0  | 24.0 | Moretrech | LABORERS | 1.0  | 8.0  | Moretrech | SUPER - CONSTRUCTION | 1.0  | 8.0  | Sovereign | SUPER - JOB   | 1.0  | 8.0  | Total hours worked to date: 3,459.3   |  | Total 6.0   | 48.0  |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Labor Classification     | Number of Employees                                                 | Hours Worked    |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | HEAVY-EQUIPMENT OPERATOR | 3.0                                                                 | 24.0            |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | LABORERS                 | 1.0                                                                 | 8.0             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | SUPER - CONSTRUCTION     | 1.0                                                                 | 8.0             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | SUPER - JOB              | 1.0                                                                 | 8.0             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Total hours worked to date: 3,459.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                          | Total 6.0                                                           | 48.0            |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>EQUIPMENT HOURS</b><br><b>The following equipment hours were Reported today:</b> <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle Hours</th> <th style="text-align: right;">Operating Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">7.50</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">7.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">7.50</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total operating hours to date: 925.00</td> <td style="text-align: right; border-top: 1px solid black;">Total 11.50</td> <td style="text-align: right; border-top: 1px solid black;">22.50</td> </tr> </tbody> </table>                                 |                          |                                                                     |                 | Serial Number | Description          | Idle Hours          | Operating Hours | N/A       | Bull Dozer               | 1.00 | 7.50 | N/A       | Loader   | 8.50 | 0.00 | N/A       | Mixing Excavator     | 1.00 | 7.50 | N/A       | Mixing Loader | 1.00 | 7.50 | Total operating hours to date: 925.00 |  | Total 11.50 | 22.50 |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Description              | Idle Hours                                                          | Operating Hours |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Bull Dozer               | 1.00                                                                | 7.50            |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Loader                   | 8.50                                                                | 0.00            |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Mixing Excavator         | 1.00                                                                | 7.50            |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Mixing Loader            | 1.00                                                                | 7.50            |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Total operating hours to date: 925.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                          | Total 11.50                                                         | 22.50           |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          |                                                                     |                 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          |                                                                     |                 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>CONTRACTOR CERTIFICATION</b> <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                          |                                                                     |                 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | DATE                     | SUPERINTENDENT'S INITIALS                                           | DATE            |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |

|                                                                                     |                                                                                                          |                                          |             |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |                                                                                                          | REPORT NUMBER<br>882                     | Page 1 of 2 |
|                                                                                     |                                                                                                          | DATE<br>28 Sep 2012 - Friday             |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |                                                                                                          | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             | WEATHER<br>Weather Caused No Delay<br>Temperature Min 50 °F, Max 60 °F; 0.2 IN Precipitation; 5 MPH Wind |                                          |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.  
 Moretrench - Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
 Stockpiling Excess Soils  
 Site Restoration / Demobilization

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Sovereign conducted QC inspections of landfill liner exposing activites conducted by Moretrench.  
 Only minimal damage to the landfill liner on each side of the barrier wall trench was observed.

**Did anything develop that may lead to a Change Order/Claim ?**  
 No developments that may lead to a Change Order during the day.

**Were there any Delays in Work Progress today?**  
 No delays in work progress during the day.

**General Comments:**  
 Work Completed During the Day:  
  
 Sovereign: Provided project oversight and on-site QC of Moretrench.  
  
 Moretrench: Miscellaneous site clean-up. Continued to expose landfill liner along trench alignment starting at station 7+00 and reaching station 6+00 by the end of the day.  
  
 Materials Brought on Site:  
  
 No new material brought on site during the day.  
  
 Equipment Brought on Site:  
  
 No additional equipment brought on site during the day.  
  
 Additional Notes:  
  
 None

**Verbal Instructions given by Government:**  
 No verbal instructions given during the day.

**Safety Inspection / Safety Meetings:**  
 Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviued prior to start of work activties.

|                                                              |                                                         |
|--------------------------------------------------------------|---------------------------------------------------------|
| <b>PREP/INITIAL DATES</b>                                    | (Preparatory and initial dates held and advance notice) |
| <b>No preparatory or initial inspections were held today</b> |                                                         |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                          | REPORT NUMBER<br>882 <span style="float: right;">Page 2 of 2</span> |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---------------------------------------------------------------------|--------------------|---------------|----------------------|------------------------|--------------------|-----------|--------------------------|------|------|-----------|----------|------|------|-----------|----------------------|------|------|-----------|---------------|------|------|---------------------------------------|--|-------------|-------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          | DATE<br>28 Sep 2012 - Friday                                        |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>ACTIVITY START/FINISH</b><br>No activities were started or finished today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                          | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                            |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>QC REQUIREMENTS</b><br>No QC requirements were completed today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br>No QC Deficiency items were issued today<br>No Deficiency items were corrected today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br>No contractors had their first or last day on site today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>LABOR HOURS</b><br>The following labor hours were Reported today: <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">2.0</td> <td style="text-align: right;">16.0</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td colspan="2">Total hours worked to date: 3,499.3</td> <td style="text-align: right;">Total 5.0</td> <td style="text-align: right;">40.0</td> </tr> </tbody> </table> |                          |                                                                     |                    | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 2.0  | 16.0 | Moretrech | LABORERS | 1.0  | 8.0  | Moretrech | SUPER - CONSTRUCTION | 1.0  | 8.0  | Sovereign | SUPER - JOB   | 1.0  | 8.0  | Total hours worked to date: 3,499.3   |  | Total 5.0   | 40.0  |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Labor Classification     | Number of<br>Employees                                              | Hours<br>Worked    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | HEAVY-EQUIPMENT OPERATOR | 2.0                                                                 | 16.0               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | LABORERS                 | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | SUPER - CONSTRUCTION     | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | SUPER - JOB              | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Total hours worked to date: 3,499.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                          | Total 5.0                                                           | 40.0               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>EQUIPMENT HOURS</b><br>The following equipment hours were Reported today: <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle<br/>Hours</th> <th style="text-align: right;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td style="text-align: right;">4.00</td> <td style="text-align: right;">4.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">7.50</td> </tr> <tr> <td colspan="2">Total operating hours to date: 937.00</td> <td style="text-align: right;">Total 22.00</td> <td style="text-align: right;">12.00</td> </tr> </tbody> </table>                                 |                          |                                                                     |                    | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A       | Bull Dozer               | 8.50 | 0.00 | N/A       | Loader   | 8.50 | 0.00 | N/A       | Mixing Excavator     | 4.00 | 4.50 | N/A       | Mixing Loader | 1.00 | 7.50 | Total operating hours to date: 937.00 |  | Total 22.00 | 12.00 |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Description              | Idle<br>Hours                                                       | Operating<br>Hours |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Bull Dozer               | 8.50                                                                | 0.00               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Loader                   | 8.50                                                                | 0.00               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Mixing Excavator         | 4.00                                                                | 4.50               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Mixing Loader            | 1.00                                                                | 7.50               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Total operating hours to date: 937.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                          | Total 22.00                                                         | 12.00              |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br>No accidents reported today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | DATE                     | SUPERINTENDENT'S INITIALS                                           | DATE               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |



|                                                                                     |                                                                                                       |                                          |             |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |                                                                                                       | REPORT NUMBER<br>885                     | Page 1 of 2 |
|                                                                                     |                                                                                                       | DATE<br>01 Oct 2012 - Monday             |             |
| PROJECT<br>Shepley's Landfill, Devens Cutoff Wall                                   |                                                                                                       | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             | WEATHER<br>Weather Caused No Delay<br>Temperature Min 50 °F, Max 60 °F; No Precipitation; 10 MPH Wind |                                          |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.  
 Moretrench - Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
 Stockpiling Excess Soils  
 Site Restoration / Demobilization

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Sovereign conducted QC inspections of landfill liner exposing activities conducted by Moretrench.  
 Only minimal damage to the landfill liner on each side of the barrier wall trench was observed.

Photo documentation conducted by Sovereign.

**Did anything develop that may lead to a Change Order/Claim?**  
 No developments that may lead to a Change Order during the day.

**Were there any Delays in Work Progress today?**  
 No delays in work progress during the day.

**General Comments:**  
 Work Completed During the Day:

Sovereign: Provided project oversight and on-site QC of Moretrench. Conducted photo documentation of capping activities. Photo IDs: 100112-01 through 100112-03

Moretrench: Miscellaneous site clean-up. Continued to expose landfill liner along trench alignment starting at station 6+00 and reaching station 4+80 by the end of the day.

Materials Brought on Site:

No new material brought on site during the day.

Equipment Brought on Site:

No additional equipment brought on site during the day.

Additional Notes:

A sample of the soil from the soil/waste pile located in the staging area was collected by Sovereign during the day. The sample was submitted to Accutest Laboratories for analysis of all COMM-97 Landfill Table 1 requirements.

**Verbal Instructions given by Government:**  
 Through conversations with between Sovereign, USACE (Ellen Iorio), and BRAC Env. Coordinator (Robert Simone) Sovereign was instructed to collect a sample of the soil from the soil/waste pile located in the staging area and have it analyzed for all COMM-97 Landfill Table 1 requirements.

**Safety Inspection / Safety Meetings:**  
 Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's reviewed prior to start of work activities.

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             | REPORT NUMBER<br>885 <span style="float: right;">Page 2 of 2</span> |                        |                      |                             |                            |                        |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|---------------------------------------------------------------------|------------------------|----------------------|-----------------------------|----------------------------|------------------------|-----------|--------------------------|------|------|-----------|----------|------|------|-----------|----------------------|------|------|-----------|---------------|------|------|---------------------------------------|--|-------------|-------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                             | DATE<br>01 Oct 2012 - Monday                                        |                        |                      |                             |                            |                        |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                             | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                            |                        |                      |                             |                            |                        |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |                                                                     |                        |                      |                             |                            |                        |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                             |                                                                     |                        |                      |                             |                            |                        |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                             |                                                                     |                        |                      |                             |                            |                        |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                             |                                                                     |                        |                      |                             |                            |                        |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;"><u>Employer</u></th> <th style="text-align: left;"><u>Labor Classification</u></th> <th style="text-align: right;"><u>Number of Employees</u></th> <th style="text-align: right;"><u>Hours Worked</u></th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">2.0</td> <td style="text-align: right;">16.0</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total hours worked to date: 3,539.3</td> <td style="text-align: right; border-top: 1px solid black;">Total 5.0</td> <td style="text-align: right; border-top: 1px solid black;">40.0</td> </tr> </tbody> </table> |                             |                                                                     |                        | <u>Employer</u>      | <u>Labor Classification</u> | <u>Number of Employees</u> | <u>Hours Worked</u>    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 2.0  | 16.0 | Moretrech | LABORERS | 1.0  | 8.0  | Moretrech | SUPER - CONSTRUCTION | 1.0  | 8.0  | Sovereign | SUPER - JOB   | 1.0  | 8.0  | Total hours worked to date: 3,539.3   |  | Total 5.0   | 40.0  |
| <u>Employer</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <u>Labor Classification</u> | <u>Number of Employees</u>                                          | <u>Hours Worked</u>    |                      |                             |                            |                        |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | HEAVY-EQUIPMENT OPERATOR    | 2.0                                                                 | 16.0                   |                      |                             |                            |                        |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | LABORERS                    | 1.0                                                                 | 8.0                    |                      |                             |                            |                        |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | SUPER - CONSTRUCTION        | 1.0                                                                 | 8.0                    |                      |                             |                            |                        |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | SUPER - JOB                 | 1.0                                                                 | 8.0                    |                      |                             |                            |                        |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Total hours worked to date: 3,539.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             | Total 5.0                                                           | 40.0                   |                      |                             |                            |                        |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>EQUIPMENT HOURS</b><br><b>The following equipment hours were Reported today:</b> <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;"><u>Serial Number</u></th> <th style="text-align: left;"><u>Description</u></th> <th style="text-align: right;"><u>Idle Hours</u></th> <th style="text-align: right;"><u>Operating Hours</u></th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td style="text-align: right;">4.00</td> <td style="text-align: right;">4.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">7.50</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total operating hours to date: 949.00</td> <td style="text-align: right; border-top: 1px solid black;">Total 22.00</td> <td style="text-align: right; border-top: 1px solid black;">12.00</td> </tr> </tbody> </table>                                 |                             |                                                                     |                        | <u>Serial Number</u> | <u>Description</u>          | <u>Idle Hours</u>          | <u>Operating Hours</u> | N/A       | Bull Dozer               | 8.50 | 0.00 | N/A       | Loader   | 8.50 | 0.00 | N/A       | Mixing Excavator     | 4.00 | 4.50 | N/A       | Mixing Loader | 1.00 | 7.50 | Total operating hours to date: 949.00 |  | Total 22.00 | 12.00 |
| <u>Serial Number</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <u>Description</u>          | <u>Idle Hours</u>                                                   | <u>Operating Hours</u> |                      |                             |                            |                        |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Bull Dozer                  | 8.50                                                                | 0.00                   |                      |                             |                            |                        |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Loader                      | 8.50                                                                | 0.00                   |                      |                             |                            |                        |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Mixing Excavator            | 4.00                                                                | 4.50                   |                      |                             |                            |                        |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Mixing Loader               | 1.00                                                                | 7.50                   |                      |                             |                            |                        |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Total operating hours to date: 949.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                             | Total 22.00                                                         | 12.00                  |                      |                             |                            |                        |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                             |                                                                     |                        |                      |                             |                            |                        |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                             |                                                                     |                        |                      |                             |                            |                        |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>CONTRACTOR CERTIFICATION</b> <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                             |                                                                     |                        |                      |                             |                            |                        |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | DATE                        | SUPERINTENDENT'S INITIALS                                           | DATE                   |                      |                             |                            |                        |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |

|                                                                                     |                                                                                                      |                                          |             |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |                                                                                                      | REPORT NUMBER<br>886                     | Page 1 of 2 |
|                                                                                     |                                                                                                      | DATE<br>02 Oct 2012 - Tuesday            |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |                                                                                                      | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             | WEATHER<br>Weather Caused No Delay<br>Temperature Min 50 °F, Max 60 °F; No Precipitation; 5 MPH Wind |                                          |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.  
 Moretrench - Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Soil-Bentonite Wall Construction  
 Stockpiling Excess Soils  
 Site Restoration / Demobilization

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Sovereign conducted QC inspections of landfill liner exposing activites conducted by Moretrench.  
 Only minimal damage to the landfill liner on each side of the barrier wall trench was observed.

**Did anything develop that may lead to a Change Order/Claim ?**  
 No developments that may lead to a Change Order during the day.

**Were there any Delays in Work Progress today?**  
 No delays in work progress during the day.

**General Comments:**  
 Work Completed During the Day:  
  
 Sovereign: Provided project oversight and on-site QC of Moretrench.  
  
 Moretrench: Miscellaneous site clean-up. Completed exposing landfill liner along trench alignment starting at station 4+80 to station 4+15 which is where the landfill liner started. Also began cleaning exposed parts of liner in prepartation for repairs to be made.  
  
 Materials Brought on Site:  
  
 No new material brought on site during the day.  
  
 Equipment Brought on Site:  
  
 No additional equipment brought on site during the day.  
  
 Additional Notes:  
  
 None.

**Verbal Instructions given by Government:**  
 Sovereign was given verbal approval by USACE (Zach Mothershed) to mobilize equipment necessary to complete the task of swifting the waste/soil pile to remove all trash less than 1 inch and create two sperate piles, one of trash and the other of soil.

**Safety Inspection / Safety Meetings:**  
 Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviuewed prior to start of work activties.

|                                                                                                                                                   |
|---------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b> |
| <div></div>                                                                                                                                       |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                          | REPORT NUMBER<br>886 <span style="float: right;">Page 2 of 2</span> |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---------------------------------------------------------------------|--------------------|---------------|----------------------|------------------------|--------------------|-----------|--------------------------|------|------|-----------|----------|------|------|-----------|----------------------|------|------|-----------|---------------|------|------|---------------------------------------|--|-------------|-------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          | DATE<br>02 Oct 2012 - Tuesday                                       |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>ACTIVITY START/FINISH</b><br>No activities were started or finished today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>QC REQUIREMENTS</b><br>No QC requirements were completed today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br>No QC Deficiency items were issued today<br>No Deficiency items were corrected today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br>No contractors had their first or last day on site today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>LABOR HOURS</b><br>The following labor hours were Reported today: <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">2.0</td> <td style="text-align: right;">16.0</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total hours worked to date: 3,579.3</td> <td style="text-align: right; border-top: 1px solid black;">Total 5.0</td> <td style="text-align: right; border-top: 1px solid black;">40.0</td> </tr> </tbody> </table> |                          |                                                                     |                    | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 2.0  | 16.0 | Moretrech | LABORERS | 1.0  | 8.0  | Moretrech | SUPER - CONSTRUCTION | 1.0  | 8.0  | Sovereign | SUPER - JOB   | 1.0  | 8.0  | Total hours worked to date: 3,579.3   |  | Total 5.0   | 40.0  |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Labor Classification     | Number of<br>Employees                                              | Hours<br>Worked    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | HEAVY-EQUIPMENT OPERATOR | 2.0                                                                 | 16.0               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | LABORERS                 | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | SUPER - CONSTRUCTION     | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | SUPER - JOB              | 1.0                                                                 | 8.0                |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Total hours worked to date: 3,579.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                          | Total 5.0                                                           | 40.0               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>EQUIPMENT HOURS</b><br>The following equipment hours were Reported today: <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle<br/>Hours</th> <th style="text-align: right;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td style="text-align: right;">4.00</td> <td style="text-align: right;">4.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td style="text-align: right;">2.00</td> <td style="text-align: right;">6.50</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total operating hours to date: 960.00</td> <td style="text-align: right; border-top: 1px solid black;">Total 23.00</td> <td style="text-align: right; border-top: 1px solid black;">11.00</td> </tr> </tbody> </table>                                 |                          |                                                                     |                    | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A       | Bull Dozer               | 8.50 | 0.00 | N/A       | Loader   | 8.50 | 0.00 | N/A       | Mixing Excavator     | 4.00 | 4.50 | N/A       | Mixing Loader | 2.00 | 6.50 | Total operating hours to date: 960.00 |  | Total 23.00 | 11.00 |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Description              | Idle<br>Hours                                                       | Operating<br>Hours |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Bull Dozer               | 8.50                                                                | 0.00               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Loader                   | 8.50                                                                | 0.00               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Mixing Excavator         | 4.00                                                                | 4.50               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Mixing Loader            | 2.00                                                                | 6.50               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| Total operating hours to date: 960.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          | Total 23.00                                                         | 11.00              |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br>No accidents reported today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          |                                                                     |                    |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | DATE                     | SUPERINTENDENT'S INITIALS                                           | DATE               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |       |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                    |                                          |             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                    | REPORT NUMBER<br>887                     | Page 1 of 2 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                    | DATE<br>03 Oct 2012 - Wednesday          |             |
| PROJECT<br>Shepley's Landfill, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                    | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                        | WEATHER<br>Weather Caused Non-Critical Delay<br>Temperature Min 50 °F, Max 60 °F; 0.2 IN Precipitation; 5 MPH Wind |                                          |             |
| <b>QC NARRATIVES</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                    |                                          |             |
| <b>Contractor/Subcontractor &amp; Area of Responsibility for work:</b><br>Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.<br>Moretrench - Barrier Wall Construction Contractor                                                                                                                                                                                                                                                            |                                                                                                                    |                                          |             |
| <b>Activities in Progress (List by Activity Number)</b><br>DFW: Soil-Bentonite Wall Construction<br>Stockpiling Excess Soils<br>Site Restoration / Demobilization                                                                                                                                                                                                                                                                                                              |                                                                                                                    |                                          |             |
| <b>Quality Control Inspections and Activities (List by Feature of Work)</b><br>Preparatory Meeting held for D.F.W: Repair of Landfill Liner                                                                                                                                                                                                                                                                                                                                    |                                                                                                                    |                                          |             |
| <b>Did anything develop that may lead to a Change Order/Claim?</b><br>No developments that may lead to a Change Order during the day.                                                                                                                                                                                                                                                                                                                                          |                                                                                                                    |                                          |             |
| <b>Were there any Delays in Work Progress today?</b><br>Wet weather delayed the start of landfill liner repairs.                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                    |                                          |             |
| <b>General Comments:</b><br>Work Completed During the Day:<br><br>Sovereign: Provided project oversight and on-site QC of Moretrench.<br><br>Moretrench: Completed miscellaneous site clean-up as wet weather delayed start of landfill liner repair.<br><br>Materials Brought on Site:<br><br>Landfill liner PVC material for repairs.<br><br>Equipment Brought on Site:<br><br>No additional equipment brought on site during the day.<br><br>Additional Notes:<br><br>None. |                                                                                                                    |                                          |             |
| <b>Verbal Instructions given by Government:</b><br>No verbal instruction given during the day by the government.                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                    |                                          |             |
| <b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's reviewed prior to start of work activities.                                                                                                                                                                                                                                                                                |                                                                                                                    |                                          |             |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><br><b>A preparatory inspection was held today for the following feature:</b><br>Repair of Landfill Liner<br><br><b>No initial inspections were held today</b>                                                                                                                                                                                                                            |                                                                                                                    |                                          |             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                    |                                          |             |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                          | REPORT NUMBER<br>887                     |                           | Page 2 of 2 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|------------------------------------------|---------------------------|-------------|---------------|----------------------|---------------------|-----------------|-----------|--------------------------|------|------|-----------|----------|------|------|-----------|----------------------|------|------|-----------|---------------|------|------|---------------------------------------|--|-------------|------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                          | DATE<br>03 Oct 2012 - Wednesday          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |      |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                          | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |      |
| <b>ACTIVITY START/FINISH</b><br>No activities were started or finished today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |      |
| <b>QC REQUIREMENTS</b><br>No QC requirements were completed today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |      |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br>No QC Deficiency items were issued today<br>No Deficiency items were corrected today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |      |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br>No contractors had their first or last day on site today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |      |
| <b>LABOR HOURS</b><br>The following labor hours were Reported today: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of Employees</th> <th style="text-align: right;">Hours Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">2.0</td> <td style="text-align: right;">24.0</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td colspan="2">Total hours worked to date: 3,627.3</td> <td style="text-align: right;">Total 5.0</td> <td style="text-align: right;">48.0</td> </tr> </tbody> </table> |                          |                                          |                           |             | Employer      | Labor Classification | Number of Employees | Hours Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 2.0  | 24.0 | Moretrech | LABORERS | 1.0  | 8.0  | Moretrech | SUPER - CONSTRUCTION | 1.0  | 8.0  | Sovereign | SUPER - JOB   | 1.0  | 8.0  | Total hours worked to date: 3,627.3   |  | Total 5.0   | 48.0 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Labor Classification     | Number of Employees                      | Hours Worked              |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | HEAVY-EQUIPMENT OPERATOR | 2.0                                      | 24.0                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | LABORERS                 | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | SUPER - CONSTRUCTION     | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | SUPER - JOB              | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |      |
| Total hours worked to date: 3,627.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                          | Total 5.0                                | 48.0                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |      |
| <b>EQUIPMENT HOURS</b><br>The following equipment hours were Reported today: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle Hours</th> <th style="text-align: right;">Operating Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td style="text-align: right;">6.50</td> <td style="text-align: right;">2.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td style="text-align: right;">6.50</td> <td style="text-align: right;">2.00</td> </tr> <tr> <td colspan="2">Total operating hours to date: 964.00</td> <td style="text-align: right;">Total 30.00</td> <td style="text-align: right;">4.00</td> </tr> </tbody> </table>                                  |                          |                                          |                           |             | Serial Number | Description          | Idle Hours          | Operating Hours | N/A       | Bull Dozer               | 8.50 | 0.00 | N/A       | Loader   | 8.50 | 0.00 | N/A       | Mixing Excavator     | 6.50 | 2.00 | N/A       | Mixing Loader | 6.50 | 2.00 | Total operating hours to date: 964.00 |  | Total 30.00 | 4.00 |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Description              | Idle Hours                               | Operating Hours           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Bull Dozer               | 8.50                                     | 0.00                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Loader                   | 8.50                                     | 0.00                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Mixing Excavator         | 6.50                                     | 2.00                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Mixing Loader            | 6.50                                     | 2.00                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |      |
| Total operating hours to date: 964.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                          | Total 30.00                              | 4.00                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |      |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br>No accidents reported today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |      |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |      |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          | DATE                                     | SUPERINTENDENT'S INITIALS |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |                                       |  |             |      |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                     |                                          |             |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                     | REPORT NUMBER<br>888                     | Page 1 of 2 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                     | DATE<br>04 Oct 2012 - Thursday           |             |
| PROJECT<br>Shepley's Landfill, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                     | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | WEATHER<br>Weather Caused Non-Critical Delay<br>Temperature Min 50 °F, Max 62 °F; 0.01 IN Precipitation; 5 MPH Wind |                                          |             |
| <b>QC NARRATIVES</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                     |                                          |             |
| <b>Contractor/Subcontractor &amp; Area of Responsibility for work:</b><br>Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.<br>Moretrench - Barrier Wall Construction Contractor                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                     |                                          |             |
| <b>Activities in Progress (List by Activity Number)</b><br>DFW: Repair of Landfill Liner<br>Stockpiling Excess Soils<br>Site Restoration / Demobilization                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                     |                                          |             |
| <b>Quality Control Inspections and Activities (List by Feature of Work)</b><br>Sovereign conduct QC inspection of landfill liner cleaning activities.                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                     |                                          |             |
| <b>Did anything develop that may lead to a Change Order/Claim?</b><br>No developments that may lead to a Change Order during the day.                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                     |                                          |             |
| <b>Were there any Delays in Work Progress today?</b><br>Wet weather delayed the start of landfill liner repairs.                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                     |                                          |             |
| <b>General Comments:</b><br>Work Completed During the Day:<br><br>Sovereign: Provided project oversight and on-site QC of Moretrench. Photodocumentaion IDs: 100412-01<br><br>Moretrench: Completed miscellaneous site clean-up, completed cleaning of landfill line with power washser. Wet weather delayed start of landfill liner repair.<br><br>Materials Brought on Site:<br><br>No new material brought on site during the day.<br><br>Equipment Brought on Site:<br><br>No additional equipment brought on site during the day.<br><br>Additional Notes:<br><br>None. |                                                                                                                     |                                          |             |
| <b>Verbal Instructions given by Government:</b><br>No verbal instruction given during the day by the government.                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                     |                                          |             |
| <b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviued prior to start of work activties.                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                     |                                          |             |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                     |                                          |             |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                     |                                          |             |
| Empty space for additional notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                     |                                          |             |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                          | REPORT NUMBER<br>888                     |                           | Page 2 of 2 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |       |  |       |      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|------------------------------------------|---------------------------|-------------|---------------|----------------------|---------------------|-----------------|-----------|--------------------------|------|------|-----------|----------|------|------|-----------|----------------------|------|------|-----------|---------------|------|------|-------|--|-------|------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          | DATE<br>04 Oct 2012 - Thursday           |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |       |  |       |      |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |       |  |       |      |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |       |  |       |      |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |       |  |       |      |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |       |  |       |      |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table border="1"> <thead> <tr> <th>Employer</th> <th>Labor Classification</th> <th>Number of Employees</th> <th>Hours Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td>3.0</td> <td>24.0</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td colspan="2">Total</td> <td>6.0</td> <td>48.0</td> </tr> </tbody> </table><br>Total hours worked to date: 3,675.3 |                          |                                          |                           |             | Employer      | Labor Classification | Number of Employees | Hours Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 3.0  | 24.0 | Moretrech | LABORERS | 1.0  | 8.0  | Moretrech | SUPER - CONSTRUCTION | 1.0  | 8.0  | Sovereign | SUPER - JOB   | 1.0  | 8.0  | Total |  | 6.0   | 48.0 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Labor Classification     | Number of Employees                      | Hours Worked              |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |       |  |       |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | HEAVY-EQUIPMENT OPERATOR | 3.0                                      | 24.0                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |       |  |       |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | LABORERS                 | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |       |  |       |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | SUPER - CONSTRUCTION     | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |       |  |       |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | SUPER - JOB              | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |       |  |       |      |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                          | 6.0                                      | 48.0                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |       |  |       |      |
| <b>EQUIPMENT HOURS</b><br><b>The following equipment hours were Reported today:</b> <table border="1"> <thead> <tr> <th>Serial Number</th> <th>Description</th> <th>Idle Hours</th> <th>Operating Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td>8.50</td> <td>0.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td>8.50</td> <td>0.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td>6.50</td> <td>2.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td>6.50</td> <td>2.00</td> </tr> <tr> <td colspan="2">Total</td> <td>30.00</td> <td>4.00</td> </tr> </tbody> </table><br>Total operating hours to date: 968.00                                  |                          |                                          |                           |             | Serial Number | Description          | Idle Hours          | Operating Hours | N/A       | Bull Dozer               | 8.50 | 0.00 | N/A       | Loader   | 8.50 | 0.00 | N/A       | Mixing Excavator     | 6.50 | 2.00 | N/A       | Mixing Loader | 6.50 | 2.00 | Total |  | 30.00 | 4.00 |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Description              | Idle Hours                               | Operating Hours           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |       |  |       |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Bull Dozer               | 8.50                                     | 0.00                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |       |  |       |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Loader                   | 8.50                                     | 0.00                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |       |  |       |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Mixing Excavator         | 6.50                                     | 2.00                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |       |  |       |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Mixing Loader            | 6.50                                     | 2.00                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |       |  |       |      |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                          | 30.00                                    | 4.00                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |       |  |       |      |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |       |  |       |      |
| <div style="height: 200px;"></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |       |  |       |      |
| <b>CONTRACTOR CERTIFICATION</b> <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                            |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |       |  |       |      |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                          | DATE                                     | SUPERINTENDENT'S INITIALS | DATE        |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |       |  |       |      |



|                                                                                     |                                                                                                      |                                          |             |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |                                                                                                      | REPORT NUMBER<br>889                     | Page 1 of 2 |
|                                                                                     |                                                                                                      | DATE<br>05 Oct 2012 - Friday             |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |                                                                                                      | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             | WEATHER<br>Weather Caused No Delay<br>Temperature Min 50 °F, Max 65 °F; No Precipitation; 5 MPH Wind |                                          |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.  
 Moretrench - Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Repair of Landfill Liner  
       Stockpiling Excess Soils  
       Site Restoration / Demobilization

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Sovereign in conjunction with Terrafox (Liner Repair Contractor) Supervisor conducted QC inspections of landfill liner work being completed by the labor crew throughout the day. QC inspections included ensuring at least a 6 inch overlap was being used between the existing liner and the new liner material being used to make the repairs and that all repair seams were a minimum of 2 inches wide. QC inspections were also conducted to ensure proper cleaning methods and materials along with proper compression methods were being used to make repair seams using chemical fusion welds. QC samples of welds collected for off-site testing.

**Did anything develop that may lead to a Change Order/Claim?**  
 No developments that may lead to a Change Order during the day.

**Were there any Delays in Work Progress today?**  
 There were no delays in work progress during the day.

**General Comments:**  
 Work Completed During the Day:  
  
 Sovereign: Provided project oversight and on-site QC of Moretrench. Photodocumentaion of landfill liner repair activities conducted during the day. Photo IDs: 100512-01through 100512-07  
  
 Moretrench: Started repair of landfill liner. Completed liner repair from station 4+15 to station 5+30 during the day.  
  
 Materials Brought on Site:  
  
 Chemical agent used from attaching new landfill liner material to existing liner material.  
  
 Equipment Brought on Site:  
  
 No additional equipment brought on site during the day.  
  
 Additional Notes:  
  
 None.

**Verbal Instructions given by Government:**  
 No verbal instruction given during the day by the government.

**Safety Inspection / Safety Meetings:**  
 Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviued prior to start of work activties.

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                          | REPORT NUMBER<br>889                     |                           | Page 2 of 2 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                   |      |      |                                       |             |       |       |                                     |  |       |      |  |  |  |      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|------------------------------------------|---------------------------|-------------|---------------|----------------------|---------------------|-----------------|-----------|--------------------------|------|------|-----------|----------|------|------|-----------|----------------------|------|------|-----------|-------------------|------|------|---------------------------------------|-------------|-------|-------|-------------------------------------|--|-------|------|--|--|--|------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                          | DATE<br>05 Oct 2012 - Friday             |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                   |      |      |                                       |             |       |       |                                     |  |       |      |  |  |  |      |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                          | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                   |      |      |                                       |             |       |       |                                     |  |       |      |  |  |  |      |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                   |      |      |                                       |             |       |       |                                     |  |       |      |  |  |  |      |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                   |      |      |                                       |             |       |       |                                     |  |       |      |  |  |  |      |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                   |      |      |                                       |             |       |       |                                     |  |       |      |  |  |  |      |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                   |      |      |                                       |             |       |       |                                     |  |       |      |  |  |  |      |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                   |      |      |                                       |             |       |       |                                     |  |       |      |  |  |  |      |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table border="1"> <thead> <tr> <th>Employer</th> <th>Labor Classification</th> <th>Number of Employees</th> <th>Hours Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td>3.0</td> <td>24.5</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td>4.0</td> <td>35.5</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPERV - PATCHING</td> <td>1.0</td> <td>9.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td colspan="2">Total hours worked to date: 3,760.3</td> <td>Total</td> <td>10.0</td> </tr> <tr> <td colspan="2"></td> <td></td> <td>85.0</td> </tr> </tbody> </table> |                          |                                          |                           |             | Employer      | Labor Classification | Number of Employees | Hours Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 3.0  | 24.5 | Moretrech | LABORERS | 4.0  | 35.5 | Moretrech | SUPER - CONSTRUCTION | 1.0  | 8.0  | Moretrech | SUPERV - PATCHING | 1.0  | 9.0  | Sovereign                             | SUPER - JOB | 1.0   | 8.0   | Total hours worked to date: 3,760.3 |  | Total | 10.0 |  |  |  | 85.0 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Labor Classification     | Number of Employees                      | Hours Worked              |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                   |      |      |                                       |             |       |       |                                     |  |       |      |  |  |  |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | HEAVY-EQUIPMENT OPERATOR | 3.0                                      | 24.5                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                   |      |      |                                       |             |       |       |                                     |  |       |      |  |  |  |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | LABORERS                 | 4.0                                      | 35.5                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                   |      |      |                                       |             |       |       |                                     |  |       |      |  |  |  |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | SUPER - CONSTRUCTION     | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                   |      |      |                                       |             |       |       |                                     |  |       |      |  |  |  |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | SUPERV - PATCHING        | 1.0                                      | 9.0                       |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                   |      |      |                                       |             |       |       |                                     |  |       |      |  |  |  |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | SUPER - JOB              | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                   |      |      |                                       |             |       |       |                                     |  |       |      |  |  |  |      |
| Total hours worked to date: 3,760.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                          | Total                                    | 10.0                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                   |      |      |                                       |             |       |       |                                     |  |       |      |  |  |  |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                                          | 85.0                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                   |      |      |                                       |             |       |       |                                     |  |       |      |  |  |  |      |
| <b>EQUIPMENT HOURS</b><br><b>The following equipment hours were Reported today:</b> <table border="1"> <thead> <tr> <th>Serial Number</th> <th>Description</th> <th>Idle Hours</th> <th>Operating Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td>8.50</td> <td>0.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td>8.50</td> <td>0.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td>6.50</td> <td>2.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td>6.50</td> <td>2.00</td> </tr> <tr> <td colspan="2">Total operating hours to date: 972.00</td> <td>Total</td> <td>30.00</td> </tr> <tr> <td colspan="2"></td> <td></td> <td>4.00</td> </tr> </tbody> </table>                                                                                                                       |                          |                                          |                           |             | Serial Number | Description          | Idle Hours          | Operating Hours | N/A       | Bull Dozer               | 8.50 | 0.00 | N/A       | Loader   | 8.50 | 0.00 | N/A       | Mixing Excavator     | 6.50 | 2.00 | N/A       | Mixing Loader     | 6.50 | 2.00 | Total operating hours to date: 972.00 |             | Total | 30.00 |                                     |  |       | 4.00 |  |  |  |      |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Description              | Idle Hours                               | Operating Hours           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                   |      |      |                                       |             |       |       |                                     |  |       |      |  |  |  |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Bull Dozer               | 8.50                                     | 0.00                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                   |      |      |                                       |             |       |       |                                     |  |       |      |  |  |  |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Loader                   | 8.50                                     | 0.00                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                   |      |      |                                       |             |       |       |                                     |  |       |      |  |  |  |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Mixing Excavator         | 6.50                                     | 2.00                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                   |      |      |                                       |             |       |       |                                     |  |       |      |  |  |  |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Mixing Loader            | 6.50                                     | 2.00                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                   |      |      |                                       |             |       |       |                                     |  |       |      |  |  |  |      |
| Total operating hours to date: 972.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          | Total                                    | 30.00                     |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                   |      |      |                                       |             |       |       |                                     |  |       |      |  |  |  |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                                          | 4.00                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                   |      |      |                                       |             |       |       |                                     |  |       |      |  |  |  |      |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                   |      |      |                                       |             |       |       |                                     |  |       |      |  |  |  |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                   |      |      |                                       |             |       |       |                                     |  |       |      |  |  |  |      |
| <b>CONTRACTOR CERTIFICATION</b> <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                   |      |      |                                       |             |       |       |                                     |  |       |      |  |  |  |      |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                          | DATE                                     | SUPERINTENDENT'S INITIALS |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                   |      |      |                                       |             |       |       |                                     |  |       |      |  |  |  |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                   |      |      |                                       |             |       |       |                                     |  |       |      |  |  |  |      |

|                                                                                     |                                                                                                      |                                          |             |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |                                                                                                      | REPORT NUMBER<br>893                     | Page 1 of 3 |
|                                                                                     |                                                                                                      | DATE<br>09 Oct 2012 - Tuesday            |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |                                                                                                      | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             | WEATHER<br>Weather Caused No Delay<br>Temperature Min 45 °F, Max 60 °F; No Precipitation; 5 MPH Wind |                                          |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.  
 Technical Drilling Services - Piezometer Installation Contractor.  
 Moretrench - Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Repair of Landfill Liner  
     Stockpiling Excess Soils  
     Site Restoration / Demobilization  
     Installation of Observation Wells (Piezometers)

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Preparatory Meeting held for DFW: Installation of Observation Wells (Piezometers)  
 Initial Inspection held for DFW: Repair of Landfill Liner

Sovereign in conjunction with Terrafox (Liner Repair Contractor) Supervisor conducted QC inspections of landfill liner work being completed by the labor crew throughout the day. QC inspections included ensuring at least a 6 inch overlap was being used between the existing liner and the new liner material being used to make the repairs and that all repair seams were a minimum of 2 inches wide. QC inspections were also conducted to ensure proper cleaning methods and materials along with proper compression methods were being used to make repair seams using chemical fusion welds. A final QC inspection of all repair areas was made prior to initiation of backfilling activities. QC samples of welds collect for off-site testing.

Sovereign conducted QC inspections of piezometer installation activities to ensure piezometers were installed to desired depths and in accordance with all plans.

**Did anything develop that may lead to a Change Order/Claim?**  
 No developments that may lead to a Change Order during the day.

**Were there any Delays in Work Progress today?**  
 There were no delays in work progress during the day.

**General Comments:**  
 Work Completed During the Day:

Sovereign: Provided project oversight and on-site QC of Moretrench. Photodocumentation of landfill liner repair and backfilling activities conducted during the day. Photo IDs: 100912-01 through 100912-011. Sovereign Field Scientist completed soil descriptions of split spoon samples collected during piezometer installation activities.

Technical Drilling Services: Completed installation of piezometers PZ-12-08 through PZ-12-10. PZ-12-09 and PZ-12-10 were set to a depth of 30 feet below grade with a 10 foot screen. Depth to water at these two locations was approximately 20 feet below grade. PZ-12-07 was set to a depth of 32 feet below grade with a 10 foot screen. Depth to water at this location was approximately 24 feet below grade.

Moretrench: Completed liner repair from station 4+30 to station 8+50 during the day. Began backfilling area where landfill liner had been completed the prior day. One foot of drainage sand placed atop liner repair followed by sandy soils to grade. Began screening the waste/soil stockpile with loader.

Materials Brought on Site:  
 75 cys of drainage sand (W.J. Graves)

Equipment Brought on Site:

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                          | REPORT NUMBER<br>893 <div style="text-align: right;">Page 2 of 3</div> |                    |               |                      |                        |                    |           |                          |      |      |           |          |     |      |           |                      |     |     |           |                   |     |     |           |                |     |     |           |             |     |     |                      |                |     |     |                      |                  |     |     |                                     |  |            |       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|------------------------------------------------------------------------|--------------------|---------------|----------------------|------------------------|--------------------|-----------|--------------------------|------|------|-----------|----------|-----|------|-----------|----------------------|-----|-----|-----------|-------------------|-----|-----|-----------|----------------|-----|-----|-----------|-------------|-----|-----|----------------------|----------------|-----|-----|----------------------|------------------|-----|-----|-------------------------------------|--|------------|-------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                          | DATE<br>09 Oct 2012 - Tuesday                                          |                    |               |                      |                        |                    |           |                          |      |      |           |          |     |      |           |                      |     |     |           |                   |     |     |           |                |     |     |           |             |     |     |                      |                |     |     |                      |                  |     |     |                                     |  |            |       |
| CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                          |                                                                        |                    |               |                      |                        |                    |           |                          |      |      |           |          |     |      |           |                      |     |     |           |                   |     |     |           |                |     |     |           |             |     |     |                      |                |     |     |                      |                  |     |     |                                     |  |            |       |
| <p>Screening machine to be used for screening of the waste/soil stockpile.</p> <p>Additional Notes:</p> <p>None.</p> <p><b>Verbal Instructions given by Government:</b><br/>         No verbal instruction given during the day by the government.</p> <p><b>Safety Inspection / Safety Meetings:</b><br/>         Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviewed prior to start of work activties.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                          |                                                                        |                    |               |                      |                        |                    |           |                          |      |      |           |          |     |      |           |                      |     |     |           |                   |     |     |           |                |     |     |           |             |     |     |                      |                |     |     |                      |                  |     |     |                                     |  |            |       |
| <p><b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)</p> <p><b>A preparatory inspection was held today for the following feature:</b><br/>         Install. of Observation Wells</p> <p><b>An initial inspection was held today for the following feature:</b><br/>         Repair of Landifll Liner</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                          |                                                                        |                    |               |                      |                        |                    |           |                          |      |      |           |          |     |      |           |                      |     |     |           |                   |     |     |           |                |     |     |           |             |     |     |                      |                |     |     |                      |                  |     |     |                                     |  |            |       |
| <p><b>ACTIVITY START/FINISH</b></p> <p>No activities were started or finished today</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                          |                                                                        |                    |               |                      |                        |                    |           |                          |      |      |           |          |     |      |           |                      |     |     |           |                   |     |     |           |                |     |     |           |             |     |     |                      |                |     |     |                      |                  |     |     |                                     |  |            |       |
| <p><b>QC REQUIREMENTS</b></p> <p>No QC requirements were completed today</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                          |                                                                        |                    |               |                      |                        |                    |           |                          |      |      |           |          |     |      |           |                      |     |     |           |                   |     |     |           |                |     |     |           |             |     |     |                      |                |     |     |                      |                  |     |     |                                     |  |            |       |
| <p><b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)</p> <p>No QC Deficiency items were issued today</p> <p>No Deficiency items were corrected today</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                          |                                                                        |                    |               |                      |                        |                    |           |                          |      |      |           |          |     |      |           |                      |     |     |           |                   |     |     |           |                |     |     |           |             |     |     |                      |                |     |     |                      |                  |     |     |                                     |  |            |       |
| <p><b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)</p> <p>Today was the first day on site for the following contractor:<br/>         Tech. Drilling Serv.</p> <p>No contractors had their last day on site today</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                          |                                                                        |                    |               |                      |                        |                    |           |                          |      |      |           |          |     |      |           |                      |     |     |           |                   |     |     |           |                |     |     |           |             |     |     |                      |                |     |     |                      |                  |     |     |                                     |  |            |       |
| <p><b>LABOR HOURS</b></p> <p>The following labor hours were Reported today:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Employer</th> <th style="text-align: left; border-bottom: 1px solid black;">Labor Classification</th> <th style="text-align: right; border-bottom: 1px solid black;">Number of<br/>Employees</th> <th style="text-align: right; border-bottom: 1px solid black;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">3.0</td> <td style="text-align: right;">25.0</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">4.0</td> <td style="text-align: right;">36.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPERV - PATCHING</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">2.0</td> </tr> <tr> <td>Sovereign</td> <td>FIELD ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Tech. Drilling Serv.</td> <td>DRILLER HELPER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Tech. Drilling Serv.</td> <td>DRILLER OPERATOR</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total hours worked to date: 3,863.3</td> <td style="text-align: right; border-top: 1px solid black;">Total 13.0</td> <td style="text-align: right; border-top: 1px solid black;">103.0</td> </tr> </tbody> </table> |                          |                                                                        |                    | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 3.0  | 25.0 | Moretrech | LABORERS | 4.0 | 36.0 | Moretrech | SUPER - CONSTRUCTION | 1.0 | 8.0 | Moretrech | SUPERV - PATCHING | 1.0 | 2.0 | Sovereign | FIELD ENGINEER | 1.0 | 8.0 | Sovereign | SUPER - JOB | 1.0 | 8.0 | Tech. Drilling Serv. | DRILLER HELPER | 1.0 | 8.0 | Tech. Drilling Serv. | DRILLER OPERATOR | 1.0 | 8.0 | Total hours worked to date: 3,863.3 |  | Total 13.0 | 103.0 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Labor Classification     | Number of<br>Employees                                                 | Hours<br>Worked    |               |                      |                        |                    |           |                          |      |      |           |          |     |      |           |                      |     |     |           |                   |     |     |           |                |     |     |           |             |     |     |                      |                |     |     |                      |                  |     |     |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | HEAVY-EQUIPMENT OPERATOR | 3.0                                                                    | 25.0               |               |                      |                        |                    |           |                          |      |      |           |          |     |      |           |                      |     |     |           |                   |     |     |           |                |     |     |           |             |     |     |                      |                |     |     |                      |                  |     |     |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | LABORERS                 | 4.0                                                                    | 36.0               |               |                      |                        |                    |           |                          |      |      |           |          |     |      |           |                      |     |     |           |                   |     |     |           |                |     |     |           |             |     |     |                      |                |     |     |                      |                  |     |     |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | SUPER - CONSTRUCTION     | 1.0                                                                    | 8.0                |               |                      |                        |                    |           |                          |      |      |           |          |     |      |           |                      |     |     |           |                   |     |     |           |                |     |     |           |             |     |     |                      |                |     |     |                      |                  |     |     |                                     |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | SUPERV - PATCHING        | 1.0                                                                    | 2.0                |               |                      |                        |                    |           |                          |      |      |           |          |     |      |           |                      |     |     |           |                   |     |     |           |                |     |     |           |             |     |     |                      |                |     |     |                      |                  |     |     |                                     |  |            |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | FIELD ENGINEER           | 1.0                                                                    | 8.0                |               |                      |                        |                    |           |                          |      |      |           |          |     |      |           |                      |     |     |           |                   |     |     |           |                |     |     |           |             |     |     |                      |                |     |     |                      |                  |     |     |                                     |  |            |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | SUPER - JOB              | 1.0                                                                    | 8.0                |               |                      |                        |                    |           |                          |      |      |           |          |     |      |           |                      |     |     |           |                   |     |     |           |                |     |     |           |             |     |     |                      |                |     |     |                      |                  |     |     |                                     |  |            |       |
| Tech. Drilling Serv.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | DRILLER HELPER           | 1.0                                                                    | 8.0                |               |                      |                        |                    |           |                          |      |      |           |          |     |      |           |                      |     |     |           |                   |     |     |           |                |     |     |           |             |     |     |                      |                |     |     |                      |                  |     |     |                                     |  |            |       |
| Tech. Drilling Serv.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | DRILLER OPERATOR         | 1.0                                                                    | 8.0                |               |                      |                        |                    |           |                          |      |      |           |          |     |      |           |                      |     |     |           |                   |     |     |           |                |     |     |           |             |     |     |                      |                |     |     |                      |                  |     |     |                                     |  |            |       |
| Total hours worked to date: 3,863.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                          | Total 13.0                                                             | 103.0              |               |                      |                        |                    |           |                          |      |      |           |          |     |      |           |                      |     |     |           |                   |     |     |           |                |     |     |           |             |     |     |                      |                |     |     |                      |                  |     |     |                                     |  |            |       |
| <p><b>EQUIPMENT HOURS</b></p> <p>The following equipment hours were Reported today:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Serial Number</th> <th style="text-align: left; border-bottom: 1px solid black;">Description</th> <th style="text-align: right; border-bottom: 1px solid black;">Idle<br/>Hours</th> <th style="text-align: right; border-bottom: 1px solid black;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> </tbody> </table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                          |                                                                        |                    | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A       | Bull Dozer               | 8.50 | 0.00 |           |          |     |      |           |                      |     |     |           |                   |     |     |           |                |     |     |           |             |     |     |                      |                |     |     |                      |                  |     |     |                                     |  |            |       |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Description              | Idle<br>Hours                                                          | Operating<br>Hours |               |                      |                        |                    |           |                          |      |      |           |          |     |      |           |                      |     |     |           |                   |     |     |           |                |     |     |           |             |     |     |                      |                |     |     |                      |                  |     |     |                                     |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Bull Dozer               | 8.50                                                                   | 0.00               |               |                      |                        |                    |           |                          |      |      |           |          |     |      |           |                      |     |     |           |                   |     |     |           |                |     |     |           |             |     |     |                      |                |     |     |                      |                  |     |     |                                     |  |            |       |

|                                                                                                                                                                                                                                                                                                                       |                  |                                          |                           |             |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|------------------------------------------|---------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                   |                  | REPORT NUMBER<br>893                     |                           | Page 3 of 3 |
|                                                                                                                                                                                                                                                                                                                       |                  | DATE<br>09 Oct 2012 - Tuesday            |                           |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                      |                  | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |                           |             |
| N/A                                                                                                                                                                                                                                                                                                                   | Loader           | 2.00                                     | 6.50                      |             |
| N/A                                                                                                                                                                                                                                                                                                                   | Mixing Excavator | 1.00                                     | 7.50                      |             |
| N/A                                                                                                                                                                                                                                                                                                                   | Mixing Loader    | 1.00                                     | 7.50                      |             |
| Total operating hours to date: 993.50                                                                                                                                                                                                                                                                                 |                  | Total                                    | 12.50                     | 21.50       |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                  |                  |                                          |                           |             |
|                                                                                                                                                                                                                                                                                                                       |                  |                                          |                           |             |
| CONTRACTOR CERTIFICATION <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b> |                  |                                          |                           |             |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                         |                  | DATE                                     | SUPERINTENDENT'S INITIALS | DATE        |

|                                                                                     |                                                                                                           |                                          |             |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |                                                                                                           | REPORT NUMBER<br>894                     | Page 1 of 2 |
|                                                                                     |                                                                                                           | DATE<br>10 Oct 2012 - Wednesday          |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |                                                                                                           | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             | WEATHER<br>Weather Caused No Delay<br>Temperature Min 50 °F, Max 60 °F; 0.25 IN Precipitation; 5 MPH Wind |                                          |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.  
 Technical Drilling Services - Piezometer Installation Contractor.  
 Moretrench - Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Stockpiling Excess Soils  
 Site Restoration / Demobilization  
 Installation of Observation Wells (Piezometers)

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Sovereign conducted visual QC inspections of backfilling activities in the area of landfill liner repair.

Sovereign conducted QC inspections of piezometer installation activites to ensure piezometers were installed to desired depths and in accordance with all plans.

**Did anything develop that may lead to a Change Order/Claim ?**  
 No developments that may lead to a Change Order during the day.

**Were there any Delays in Work Progress today?**  
 There were no delays in work progress during the day.

**General Comments:**  
 Work Completed During the Day:

Sovereign: Provided project oversight and on-site QC of Moretrench. Photodocumentaion of backfilling and drilling activities conducted during the day. Photo IDs: 1001012-01through 101012-05. Sovereign Field Scientist completed soil descriptions of spilt spoon samples collected during piezometer installation activities.

Technical Drilling Services: Completed installation of piezometers PZ-12-05, PZ-12-06. and PZ-12-08. PZ-12-05 was set to a depth of 35 feet below grade with a 10 foot screen and PZ-12-06 were set to a depth of 36 feet below grade with a 10 foot screen. Depth to water at these two locations was approximately 20 feet below grade. PZ-12-08 was set to a depth of 32 feet below grade with a 10 foot screen. Depth to water at this location was approximately 24 feet below grade

Moretrench: Completed backfilling area where landfill liner repair had been completed the prior day. One foot of drainage sand placed atop liner repair followed by sandy soils to grade. Continured screening the waste/soil stockpile with loadle and screener.

Materials Brought on Site:

75 cys of drainage sand (W.J. Graves)

Equipment Brought on Site:

No new equipment brought on site.  
 Sovereign field trailer removed from site.

Additional Notes:

None.

**Verbal Instructions given by Government:**  
 No verbal instruction given during the day by the government.

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                          | REPORT NUMBER<br>894 <span style="float: right;">Page 2 of 2</span> |                                   |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |             |       |                      |                |     |     |                      |                  |     |     |                                     |  |           |      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---------------------------------------------------------------------|-----------------------------------|---------------|----------------------|------------------------|--------------------|-----------|--------------------------|------|------|-----------|----------|------|------|-----------|----------------------|------|------|-----------|----------------|------|------|-----------------------------------------|-------------|-------------|-------|----------------------|----------------|-----|-----|----------------------|------------------|-----|-----|-------------------------------------|--|-----------|------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                          | DATE<br>10 Oct 2012 - Wednesday                                     |                                   |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |             |       |                      |                |     |     |                      |                  |     |     |                                     |  |           |      |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                          | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                            |                                   |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |             |       |                      |                |     |     |                      |                  |     |     |                                     |  |           |      |
| <b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviued prior to start of work activties.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                          |                                                                     |                                   |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |             |       |                      |                |     |     |                      |                  |     |     |                                     |  |           |      |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                          |                                                                     |                                   |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |             |       |                      |                |     |     |                      |                  |     |     |                                     |  |           |      |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                          |                                                                     |                                   |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |             |       |                      |                |     |     |                      |                  |     |     |                                     |  |           |      |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                          |                                                                     |                                   |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |             |       |                      |                |     |     |                      |                  |     |     |                                     |  |           |      |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                                                                     |                                   |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |             |       |                      |                |     |     |                      |                  |     |     |                                     |  |           |      |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                          |                                                                     |                                   |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |             |       |                      |                |     |     |                      |                  |     |     |                                     |  |           |      |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">2.0</td> <td style="text-align: right;">16.0</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Sovereign</td> <td>FIELD ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">7.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Tech. Drilling Serv.</td> <td>DRILLER HELPER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">7.0</td> </tr> <tr> <td>Tech. Drilling Serv.</td> <td>DRILLER OPERATOR</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">7.0</td> </tr> <tr> <td colspan="2">Total hours worked to date: 3,924.3</td> <td style="text-align: right;">Total 8.0</td> <td style="text-align: right;">61.0</td> </tr> </tbody> </table> |                          |                                                                     |                                   | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 2.0  | 16.0 | Moretrech | LABORERS | 1.0  | 8.0  | Moretrech | SUPER - CONSTRUCTION | 1.0  | 8.0  | Sovereign | FIELD ENGINEER | 1.0  | 7.0  | Sovereign                               | SUPER - JOB | 1.0         | 8.0   | Tech. Drilling Serv. | DRILLER HELPER | 1.0 | 7.0 | Tech. Drilling Serv. | DRILLER OPERATOR | 1.0 | 7.0 | Total hours worked to date: 3,924.3 |  | Total 8.0 | 61.0 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Labor Classification     | Number of<br>Employees                                              | Hours<br>Worked                   |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |             |       |                      |                |     |     |                      |                  |     |     |                                     |  |           |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | HEAVY-EQUIPMENT OPERATOR | 2.0                                                                 | 16.0                              |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |             |       |                      |                |     |     |                      |                  |     |     |                                     |  |           |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | LABORERS                 | 1.0                                                                 | 8.0                               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |             |       |                      |                |     |     |                      |                  |     |     |                                     |  |           |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | SUPER - CONSTRUCTION     | 1.0                                                                 | 8.0                               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |             |       |                      |                |     |     |                      |                  |     |     |                                     |  |           |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | FIELD ENGINEER           | 1.0                                                                 | 7.0                               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |             |       |                      |                |     |     |                      |                  |     |     |                                     |  |           |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | SUPER - JOB              | 1.0                                                                 | 8.0                               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |             |       |                      |                |     |     |                      |                  |     |     |                                     |  |           |      |
| Tech. Drilling Serv.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | DRILLER HELPER           | 1.0                                                                 | 7.0                               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |             |       |                      |                |     |     |                      |                  |     |     |                                     |  |           |      |
| Tech. Drilling Serv.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | DRILLER OPERATOR         | 1.0                                                                 | 7.0                               |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |             |       |                      |                |     |     |                      |                  |     |     |                                     |  |           |      |
| Total hours worked to date: 3,924.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                          | Total 8.0                                                           | 61.0                              |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |             |       |                      |                |     |     |                      |                  |     |     |                                     |  |           |      |
| <b>EQUIPMENT HOURS</b><br><b>The following equipment hours were Reported today:</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle<br/>Hours</th> <th style="text-align: right;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">5.00</td> <td style="text-align: right;">3.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td style="text-align: right;">5.00</td> <td style="text-align: right;">3.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">7.50</td> </tr> <tr> <td colspan="2">Total operating hours to date: 1,008.00</td> <td style="text-align: right;">Total 19.50</td> <td style="text-align: right;">14.50</td> </tr> </tbody> </table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          |                                                                     |                                   | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A       | Bull Dozer               | 8.50 | 0.00 | N/A       | Loader   | 5.00 | 3.50 | N/A       | Mixing Excavator     | 5.00 | 3.50 | N/A       | Mixing Loader  | 1.00 | 7.50 | Total operating hours to date: 1,008.00 |             | Total 19.50 | 14.50 |                      |                |     |     |                      |                  |     |     |                                     |  |           |      |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Description              | Idle<br>Hours                                                       | Operating<br>Hours                |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |             |       |                      |                |     |     |                      |                  |     |     |                                     |  |           |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Bull Dozer               | 8.50                                                                | 0.00                              |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |             |       |                      |                |     |     |                      |                  |     |     |                                     |  |           |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Loader                   | 5.00                                                                | 3.50                              |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |             |       |                      |                |     |     |                      |                  |     |     |                                     |  |           |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Mixing Excavator         | 5.00                                                                | 3.50                              |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |             |       |                      |                |     |     |                      |                  |     |     |                                     |  |           |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Mixing Loader            | 1.00                                                                | 7.50                              |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |             |       |                      |                |     |     |                      |                  |     |     |                                     |  |           |      |
| Total operating hours to date: 1,008.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          | Total 19.50                                                         | 14.50                             |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |             |       |                      |                |     |     |                      |                  |     |     |                                     |  |           |      |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                          |                                                                     |                                   |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |             |       |                      |                |     |     |                      |                  |     |     |                                     |  |           |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                          |                                                                     |                                   |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |             |       |                      |                |     |     |                      |                  |     |     |                                     |  |           |      |
| <b>CONTRACTOR CERTIFICATION</b> <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                          |                                                                     |                                   |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |             |       |                      |                |     |     |                      |                  |     |     |                                     |  |           |      |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                          | DATE                                                                | SUPERINTENDENT'S INITIALS<br>DATE |               |                      |                        |                    |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |                                         |             |             |       |                      |                |     |     |                      |                  |     |     |                                     |  |           |      |

|                                                                                     |  |                                                                                                       |             |
|-------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |  | REPORT NUMBER<br>895                                                                                  | Page 1 of 2 |
|                                                                                     |  | DATE<br>11 Oct 2012 - Thursday                                                                        |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |  | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                              |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             |  | WEATHER<br>Weather Caused No Delay<br>Temperature Min 50 °F, Max 55 °F; No Precipitation; 15 MPH Wind |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.  
 Technical Drilling Services - Piezometer Installation Contractor.  
 Moretrench - Barrier Wall Construction Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Stockpiling Excess Soils  
 Site Restoration / Demobilization  
 Installation of Observation Wells (Piezometers)

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Sovereign conducted QC inspections of piezometer installation activites to ensure piezometers were installed to desired depths and in accordance with all plans.

A Follow-up inspection was completed for DFWs: Stockpiling of Soil Materials and Site Restoration / Demobilization. by Sovereign and USACE.

This inspections were also deemed as the Pre-Final Inspection for the project by Randy LeCuyer (USACE Construction Representative).

**Did anything develop that may lead to a Change Order/Claim ?**  
 No developments that may lead to a Change Order during the day.

**Were there any Delays in Work Progress today?**  
 There were no delays in work progress during the day.

**General Comments:**  
 Work Completed During the Day:

Sovereign: Provided project oversight and on-site QC of Moretrench. Photodocumentaion of drilling activities conducted during the day. Photo IDs: 101112-01through 101112-04. Sovereign Field Scientist completed soil descriptions of spilt spoon samples collected during piezometer installation activities.

Technical Drilling Services: Completed installation of piezometers PZ-12-01 thorough PZ-12-04. Piezometers PZ-12-01 thorough PZ-12-04PZ-12-05 were set to a depth of 36 feet below grade with a 10 foot screen. Depth to water at all locations was approximately 20 feet below grade.

Moretrench: Loaded trailers and shipped Moretrench stoarage container, field office, fuel cell, and HDPE pipe off-site. Dumpster removed from site by Waste Management. Completed screening of waste/soil pile. Set up waste storage area. Installed plastic on the ground and surrounded area with silt fencing prior to placing the screened waste on top. Stockpiled screen clean soil and installed silt fence around the stockpile. Graded and repaired access road from gate to platform area. Scraped road surface and repaired pot holes.

Materials Brought on Site:

No new materials brought on site during the day.

Equipment Brought on Site:

No new equipment brought on site.

Additional Notes:

Bill Brandon (USEPA) on site during the afternoon to observe installation of piezometers PZ-12-01 and PZ-12-02.



| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                          | REPORT NUMBER<br>895 <span style="float: right;">Page 2 of 2</span> |                 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---------------------------------------------------------------------|-----------------|---------------|----------------------|---------------------|-----------------|-----------|--------------------------|------|------|-----------|----------|------|------|-----------|----------------------|------|------|-----------|----------------|------|------|-----------|-------------|--------------|--------------|-----------------------------------------|----------------|-----|--------------|----------------------|------------------|-----|-----|--|--|--------------|------------|-------------------------------------|--|--|-------------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          | DATE<br>11 Oct 2012 - Thursday                                      |                 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
| CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                          |                                                                     |                 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
| <b>Verbal Instructions given by Government:</b><br>No verbal instruction given during the day by the government.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |                                                                     |                 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
| <b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's reviewed prior to start of work activities.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          |                                                                     |                 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                          |                                                                     |                 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                          |                                                                     |                 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                          |                                                                     |                 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |                                                                     |                 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                          |                                                                     |                 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <thead> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Employer</th> <th style="text-align: left; border-bottom: 1px solid black;">Labor Classification</th> <th style="text-align: right; border-bottom: 1px solid black;">Number of Employees</th> <th style="text-align: right; border-bottom: 1px solid black;">Hours Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">2.0</td> <td style="text-align: right;">16.0</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Sovereign</td> <td>FIELD ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.5</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td>Tech. Drilling Serv.</td> <td>DRILLER HELPER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.5</td> </tr> <tr> <td>Tech. Drilling Serv.</td> <td>DRILLER OPERATOR</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.5</td> </tr> <tr> <td colspan="2"></td> <td style="text-align: right; border-top: 1px solid black;"><b>Total</b></td> <td style="text-align: right; border-top: 1px solid black;"><b>8.0</b></td> </tr> <tr> <td colspan="2">Total hours worked to date: 3,989.8</td> <td></td> <td style="text-align: right; border-top: 1px solid black;"><b>65.5</b></td> </tr> </tbody> </table> |                          |                                                                     |                 | Employer      | Labor Classification | Number of Employees | Hours Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 2.0  | 16.0 | Moretrech | LABORERS | 1.0  | 8.0  | Moretrech | SUPER - CONSTRUCTION | 1.0  | 8.0  | Sovereign | FIELD ENGINEER | 1.0  | 8.5  | Sovereign | SUPER - JOB | 1.0          | 8.0          | Tech. Drilling Serv.                    | DRILLER HELPER | 1.0 | 8.5          | Tech. Drilling Serv. | DRILLER OPERATOR | 1.0 | 8.5 |  |  | <b>Total</b> | <b>8.0</b> | Total hours worked to date: 3,989.8 |  |  | <b>65.5</b> |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Labor Classification     | Number of Employees                                                 | Hours Worked    |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | HEAVY-EQUIPMENT OPERATOR | 2.0                                                                 | 16.0            |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | LABORERS                 | 1.0                                                                 | 8.0             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | SUPER - CONSTRUCTION     | 1.0                                                                 | 8.0             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | FIELD ENGINEER           | 1.0                                                                 | 8.5             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | SUPER - JOB              | 1.0                                                                 | 8.0             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
| Tech. Drilling Serv.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | DRILLER HELPER           | 1.0                                                                 | 8.5             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
| Tech. Drilling Serv.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | DRILLER OPERATOR         | 1.0                                                                 | 8.5             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          | <b>Total</b>                                                        | <b>8.0</b>      |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
| Total hours worked to date: 3,989.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                          |                                                                     | <b>65.5</b>     |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
| <b>EQUIPMENT HOURS</b><br><b>The following equipment hours were Reported today:</b> <table style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <thead> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Serial Number</th> <th style="text-align: left; border-bottom: 1px solid black;">Description</th> <th style="text-align: right; border-bottom: 1px solid black;">Idle Hours</th> <th style="text-align: right; border-bottom: 1px solid black;">Operating Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">5.00</td> <td style="text-align: right;">3.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td style="text-align: right;">8.50</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td style="text-align: right;">1.00</td> <td style="text-align: right;">7.50</td> </tr> <tr> <td colspan="2"></td> <td style="text-align: right; border-top: 1px solid black;"><b>Total</b></td> <td style="text-align: right; border-top: 1px solid black;"><b>23.00</b></td> </tr> <tr> <td colspan="2">Total operating hours to date: 1,019.00</td> <td></td> <td style="text-align: right; border-top: 1px solid black;"><b>11.00</b></td> </tr> </tbody> </table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          |                                                                     |                 | Serial Number | Description          | Idle Hours          | Operating Hours | N/A       | Bull Dozer               | 8.50 | 0.00 | N/A       | Loader   | 5.00 | 3.50 | N/A       | Mixing Excavator     | 8.50 | 0.00 | N/A       | Mixing Loader  | 1.00 | 7.50 |           |             | <b>Total</b> | <b>23.00</b> | Total operating hours to date: 1,019.00 |                |     | <b>11.00</b> |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Description              | Idle Hours                                                          | Operating Hours |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Bull Dozer               | 8.50                                                                | 0.00            |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Loader                   | 5.00                                                                | 3.50            |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Mixing Excavator         | 8.50                                                                | 0.00            |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Mixing Loader            | 1.00                                                                | 7.50            |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          | <b>Total</b>                                                        | <b>23.00</b>    |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
| Total operating hours to date: 1,019.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                          |                                                                     | <b>11.00</b>    |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          |                                                                     |                 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          |                                                                     |                 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
| <b>CONTRACTOR CERTIFICATION</b> <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                          |                                                                     |                 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | DATE                     | SUPERINTENDENT'S INITIALS                                           | DATE            |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |                |      |      |           |             |              |              |                                         |                |     |              |                      |                  |     |     |  |  |              |            |                                     |  |  |             |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                                                                                                                     |             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  | REPORT NUMBER<br>896                                                                                                | Page 1 of 2 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  | DATE<br>12 Oct 2012 - Friday                                                                                        |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                                            |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  | WEATHER<br>Weather Caused Non-Critical Delay<br>Temperature Min 50 °F, Max 55 °F; 0.1 IN Precipitation; 10 MPH Wind |             |
| <b>QC NARRATIVES</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |                                                                                                                     |             |
| <b>Contractor/Subcontractor &amp; Area of Responsibility for work:</b><br>Sovereign - Provided oversight of Moretrench. Provided on-site QC and documentation.<br>Moretrench - Barrier Wall Construction Contractor                                                                                                                                                                                                                                                                                                                                     |  |                                                                                                                     |             |
| <b>Activities in Progress (List by Activity Number)</b><br>DFW: Site Restoration / Demobilization                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |                                                                                                                     |             |
| <b>Quality Control Inspections and Activities (List by Feature of Work)</b><br>Sovereign conducted QC inspections of rough grading and rebuilding of berm.                                                                                                                                                                                                                                                                                                                                                                                              |  |                                                                                                                     |             |
| <b>Did anything develop that may lead to a Change Order/Claim?</b><br>No developments that may lead to a Change Order during the day.                                                                                                                                                                                                                                                                                                                                                                                                                   |  |                                                                                                                     |             |
| <b>Were there any Delays in Work Progress today?</b><br>Due to wet weather rough grading and rebuilding of the berm was only conducted during the morning.                                                                                                                                                                                                                                                                                                                                                                                              |  |                                                                                                                     |             |
| <b>General Comments:</b><br>Work Completed During the Day:<br><br>Sovereign: Provided project oversight and on-site QC of Moretrench.<br><br>Moretrench: Prepared heavy equipment for demobilization. Rough graded northern portion of the barrier wall. Started to rebuild berm from existing berm along access road to around station 7+00.<br><br>Materials Brought on Site:<br><br>No new materials brought on site during the day.<br><br>Equipment Brought on Site:<br><br>No new equipment brought on site.<br><br>Additional Notes:<br><br>None |  |                                                                                                                     |             |
| <b>Verbal Instructions given by Government:</b><br>No verbal instruction given during the day by the government.                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |                                                                                                                     |             |
| <b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's viewed prior to start of work activities.                                                                                                                                                                                                                                                                                                                                                           |  |                                                                                                                     |             |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                       |  |                                                                                                                     |             |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |                                                                                                                     |             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                                                                                                                     |             |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                          | REPORT NUMBER<br>896                     |                           | Page 2 of 2 |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |       |  |       |       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|------------------------------------------|---------------------------|-------------|---------------|----------------------|---------------------|-----------------|-----------|--------------------------|------|------|-----------|----------|------|------|-----------|----------------------|------|------|-----------|---------------|------|------|-------|--|-------|-------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                          | DATE<br>12 Oct 2012 - Friday             |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |       |  |       |       |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                          | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |       |  |       |       |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |       |  |       |       |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |       |  |       |       |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |       |  |       |       |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table border="1"> <thead> <tr> <th>Employer</th> <th>Labor Classification</th> <th>Number of Employees</th> <th>Hours Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td>2.0</td> <td>16.0</td> </tr> <tr> <td>Moretrech</td> <td>LABORERS</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td>Moretrech</td> <td>SUPER - CONSTRUCTION</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td>1.0</td> <td>8.0</td> </tr> <tr> <td colspan="2">Total</td> <td>5.0</td> <td>40.0</td> </tr> </tbody> </table> Total hours worked to date: 4,029.8 |                          |                                          |                           |             | Employer      | Labor Classification | Number of Employees | Hours Worked    | Moretrech | HEAVY-EQUIPMENT OPERATOR | 2.0  | 16.0 | Moretrech | LABORERS | 1.0  | 8.0  | Moretrech | SUPER - CONSTRUCTION | 1.0  | 8.0  | Sovereign | SUPER - JOB   | 1.0  | 8.0  | Total |  | 5.0   | 40.0  |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Labor Classification     | Number of Employees                      | Hours Worked              |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |       |  |       |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | HEAVY-EQUIPMENT OPERATOR | 2.0                                      | 16.0                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |       |  |       |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | LABORERS                 | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |       |  |       |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | SUPER - CONSTRUCTION     | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |       |  |       |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | SUPER - JOB              | 1.0                                      | 8.0                       |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |       |  |       |       |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                          | 5.0                                      | 40.0                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |       |  |       |       |
| <b>EQUIPMENT HOURS</b><br><b>The following equipment hours were Reported today:</b> <table border="1"> <thead> <tr> <th>Serial Number</th> <th>Description</th> <th>Idle Hours</th> <th>Operating Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td>8.50</td> <td>0.00</td> </tr> <tr> <td>N/A</td> <td>Loader</td> <td>5.00</td> <td>3.50</td> </tr> <tr> <td>N/A</td> <td>Mixing Excavator</td> <td>8.50</td> <td>0.00</td> </tr> <tr> <td>N/A</td> <td>Mixing Loader</td> <td>1.00</td> <td>7.50</td> </tr> <tr> <td colspan="2">Total</td> <td>23.00</td> <td>11.00</td> </tr> </tbody> </table> Total operating hours to date: 1,030.00                               |                          |                                          |                           |             | Serial Number | Description          | Idle Hours          | Operating Hours | N/A       | Bull Dozer               | 8.50 | 0.00 | N/A       | Loader   | 5.00 | 3.50 | N/A       | Mixing Excavator     | 8.50 | 0.00 | N/A       | Mixing Loader | 1.00 | 7.50 | Total |  | 23.00 | 11.00 |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Description              | Idle Hours                               | Operating Hours           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |       |  |       |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Bull Dozer               | 8.50                                     | 0.00                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |       |  |       |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Loader                   | 5.00                                     | 3.50                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |       |  |       |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Mixing Excavator         | 8.50                                     | 0.00                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |       |  |       |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Mixing Loader            | 1.00                                     | 7.50                      |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |       |  |       |       |
| Total                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                          | 23.00                                    | 11.00                     |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |       |  |       |       |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |       |  |       |       |
| <div style="height: 200px;"></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |       |  |       |       |
| <b>CONTRACTOR CERTIFICATION</b> <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                         |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |       |  |       |       |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          | DATE                                     | SUPERINTENDENT'S INITIALS |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |       |  |       |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                          |                                          |                           |             |               |                      |                     |                 |           |                          |      |      |           |          |      |      |           |                      |      |      |           |               |      |      |       |  |       |       |

|                                                                                     |  |                                                                                                      |             |
|-------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |  | REPORT NUMBER<br>908                                                                                 | Page 1 of 2 |
|                                                                                     |  | DATE<br>24 Oct 2012 - Wednesday                                                                      |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |  | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                             |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             |  | WEATHER<br>Weather Caused No Delay<br>Temperature Min 50 °F, Max 60 °F; No Precipitation; 5 MPH Wind |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of TDS  
 Technical Drilling Services - Piezometer Installation Contractor.

**Activities in Progress (List by Activity Number)**  
 DFW: Installation of Observation Wells (Piezometers)

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Sovereign conducted QC inspections of piezometer casing installations to ensure the methods used would be conducive to landfill liner repairs around each piezometer.

**Did anything develop that may lead to a Change Order/Claim?**  
 No developments that may lead to a Change Order during the day.

**Were there any Delays in Work Progress today?**  
 There were no delays in work progress during the day.

**General Comments:**  
 Work Completed During the Day:

Sovereign: Provided project oversight of Technical Drilling Services during the installation of steel casings around piezometers located within the landfill liner.

Technical Drilling Services: Conducted the installation of steel casings around piezometers PZ-12-02 through PZ-12-06. Extra long steel casings were fabricated by TDS off-site. The extra long steel casings were need for those piezometers located within the landfill liner. The steel casing on each piezometer were installed to a depth of approximately one to one and a half feet below the landfill liner and cemented in. Area around these piezometers were not backfilled during the day as the landfill liner around each piezometer will have to be repaired at a future date.

Materials Brought on Site:

Five extra long steel casings and cement.

Equipment Brought on Site:

No new equipment brought on site.

Additional Notes:

None.

**Verbal Instructions given by Government:**  
 No verbal instruction given during the day by the government.

**Safety Inspection / Safety Meetings:**  
 Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviued prior to start of work activties.

|                                                              |                                                         |
|--------------------------------------------------------------|---------------------------------------------------------|
| <b>PREP/INITIAL DATES</b>                                    | (Preparatory and initial dates held and advance notice) |
| <b>No preparatory or initial inspections were held today</b> |                                                         |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                      | REPORT NUMBER<br>908 <span style="float: right;">Page 2 of 2</span> |                           |          |                      |                        |                 |           |             |     |     |                      |                  |     |     |                                     |  |           |     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|---------------------------------------------------------------------|---------------------------|----------|----------------------|------------------------|-----------------|-----------|-------------|-----|-----|----------------------|------------------|-----|-----|-------------------------------------|--|-----------|-----|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                      | DATE<br>24 Oct 2012 - Wednesday                                     |                           |          |                      |                        |                 |           |             |     |     |                      |                  |     |     |                                     |  |           |     |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                      | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                            |                           |          |                      |                        |                 |           |             |     |     |                      |                  |     |     |                                     |  |           |     |
| <b>ACTIVITY START/FINISH</b><br>No activities were started or finished today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                      |                                                                     |                           |          |                      |                        |                 |           |             |     |     |                      |                  |     |     |                                     |  |           |     |
| <b>QC REQUIREMENTS</b><br>No QC requirements were completed today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                      |                                                                     |                           |          |                      |                        |                 |           |             |     |     |                      |                  |     |     |                                     |  |           |     |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br>No QC Deficiency items were issued today<br>No Deficiency items were corrected today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                      |                                                                     |                           |          |                      |                        |                 |           |             |     |     |                      |                  |     |     |                                     |  |           |     |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br>No contractors had their first day on site today<br>Today was the last day on site for the following contractor:<br>Tech. Drilling Serv.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                      |                                                                     |                           |          |                      |                        |                 |           |             |     |     |                      |                  |     |     |                                     |  |           |     |
| <b>LABOR HOURS</b><br>The following labor hours were Reported today: <table border="0" style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">3.0</td> </tr> <tr> <td>Tech. Drilling Serv.</td> <td>DRILLER OPERATOR</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">3.0</td> </tr> <tr> <td colspan="2">Total hours worked to date: 4,035.8</td> <td style="text-align: right;">Total 2.0</td> <td style="text-align: right;">6.0</td> </tr> </tbody> </table> |                      |                                                                     |                           | Employer | Labor Classification | Number of<br>Employees | Hours<br>Worked | Sovereign | SUPER - JOB | 1.0 | 3.0 | Tech. Drilling Serv. | DRILLER OPERATOR | 1.0 | 3.0 | Total hours worked to date: 4,035.8 |  | Total 2.0 | 6.0 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Labor Classification | Number of<br>Employees                                              | Hours<br>Worked           |          |                      |                        |                 |           |             |     |     |                      |                  |     |     |                                     |  |           |     |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | SUPER - JOB          | 1.0                                                                 | 3.0                       |          |                      |                        |                 |           |             |     |     |                      |                  |     |     |                                     |  |           |     |
| Tech. Drilling Serv.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | DRILLER OPERATOR     | 1.0                                                                 | 3.0                       |          |                      |                        |                 |           |             |     |     |                      |                  |     |     |                                     |  |           |     |
| Total hours worked to date: 4,035.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                      | Total 2.0                                                           | 6.0                       |          |                      |                        |                 |           |             |     |     |                      |                  |     |     |                                     |  |           |     |
| <b>EQUIPMENT HOURS</b><br>No equipment hours were Reported today<br>Total operating hours to date: 1,030.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                      |                                                                     |                           |          |                      |                        |                 |           |             |     |     |                      |                  |     |     |                                     |  |           |     |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br>No accidents reported today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                      |                                                                     |                           |          |                      |                        |                 |           |             |     |     |                      |                  |     |     |                                     |  |           |     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                      |                                                                     |                           |          |                      |                        |                 |           |             |     |     |                      |                  |     |     |                                     |  |           |     |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                      |                                                                     |                           |          |                      |                        |                 |           |             |     |     |                      |                  |     |     |                                     |  |           |     |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                      | DATE                                                                | SUPERINTENDENT'S INITIALS |          |                      |                        |                 |           |             |     |     |                      |                  |     |     |                                     |  |           |     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                      |                                                                     | DATE                      |          |                      |                        |                 |           |             |     |     |                      |                  |     |     |                                     |  |           |     |

|                                                                                     |                                                                                                       |                                          |             |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |                                                                                                       | REPORT NUMBER<br>909                     | Page 1 of 2 |
|                                                                                     |                                                                                                       | DATE<br>25 Oct 2012 - Thursday           |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |                                                                                                       | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             | WEATHER<br>Weather Caused No Delay<br>Temperature Min 45 °F, Max 55 °F; No Precipitation; 10 MPH Wind |                                          |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Gatsby Grounds  
 Gatsby Grounds (sub-contractor to Moretrench) - Site Restoration Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Site Restoration / Demobilization

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Sovereign conducted QC inspections of site restoration activities being conducted during the day.  
  
 A Follow-Up Inspection was completed for DFW: Site Restoration / Demobilization.

**Did anything develop that may lead to a Change Order/Claim?**  
 No developments that may lead to a Change Order during the day.

**Were there any Delays in Work Progress today?**  
 There were no delays in work progress during the day.

**General Comments:**  
 Work Completed During the Day:

Sovereign: Provided project oversight of Gatsby Grounds (sub-contractor to Moretrench) during site restoration activities. Conducted photo documentation of restoration activities. Photograph IDs: 102512-01 through 102512-05.

Gatsby Grounds (sub-contractor to Moretrench): Conducted site restoration activities including the completeion of rough grading with a bull dozer in the northern portion of disturbed area around the barrier wall. Final grading was completed in the southern and central portions of the disturbed area around the barrier wall with a soil conditioner and power-rake.

Materials Brought on Site:

None.

Equipment Brought on Site:

John Deer 450H Bull Dozer - Taken off-site at end of the day.  
 John Deer Skid Steerer with soil conditioner and power-rake attachments.

Additional Notes:

Randy LeCuyer (USACE Construction Representative) on-site during the afternoon to complete inspection of site restoration activities. No major comments or concerns noted during walk-through of the site. Jonathan Chaffee of Sovereign asked Randy LeCuyer if he still wanted seeding activities to be conducted the following day with a hurricane in the forecast for early the next week. Randy LeCuyer informed Sovereign to conduct seeding activites the following day. A final inspection for the project will be conducted following the completeion of all site restoration activities including the removal and disposal of stockpiled waste and concrete.

**Verbal Instructions given by Government:**  
 Jonathan Chaffee of Sovereign asked Randy LeCuyer if he still wanted seeding activities to be conducted the following day with a hurricane in the forecast for early the next week. Randy LeCuyer informed Sovereign to conduct seeding activites the following day.

No other verbal instruction given during the day by the government.

**Safety Inspection / Safety Meetings:**

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                              | REPORT NUMBER<br>909                     |                           | Page 2 of 2 |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|------------------------------------------|---------------------------|-------------|---------------|----------------------|------------------------|--------------------|-----------|----------------------|------|------|-----------|------------------------------|------|------|-----------------------------------------|--|------------|-------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                              | DATE<br>25 Oct 2012 - Thursday           |                           |             |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |       |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                              | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |                           |             |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |       |
| Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's reviewed prior to start of work activities.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                              |                                          |                           |             |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |       |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                              |                                          |                           |             |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |       |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                              |                                          |                           |             |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |       |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                              |                                          |                           |             |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |       |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                              |                                          |                           |             |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |       |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                              |                                          |                           |             |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |       |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table border="0" style="width: 100%;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>LANDSCAPE CONTRACTOR</td> <td style="text-align: right;">2.0</td> <td style="text-align: right;">16.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">8.0</td> </tr> <tr> <td colspan="2">Total hours worked to date: 4,059.8</td> <td style="text-align: right;">Total 3.0</td> <td style="text-align: right;">24.0</td> </tr> </tbody> </table>   |                              |                                          |                           |             | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | Moretrech | LANDSCAPE CONTRACTOR | 2.0  | 16.0 | Sovereign | SUPER - JOB                  | 1.0  | 8.0  | Total hours worked to date: 4,059.8     |  | Total 3.0  | 24.0  |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Labor Classification         | Number of<br>Employees                   | Hours<br>Worked           |             |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |       |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | LANDSCAPE CONTRACTOR         | 2.0                                      | 16.0                      |             |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |       |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | SUPER - JOB                  | 1.0                                      | 8.0                       |             |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |       |
| Total hours worked to date: 4,059.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                              | Total 3.0                                | 24.0                      |             |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |       |
| <b>EQUIPMENT HOURS</b><br><b>The following equipment hours were Reported today:</b> <table border="0" style="width: 100%;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle<br/>Hours</th> <th style="text-align: right;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Bull Dozer</td> <td style="text-align: right;">0.50</td> <td style="text-align: right;">8.00</td> </tr> <tr> <td>N/A</td> <td>Skid Steerer with Power Rake</td> <td style="text-align: right;">0.50</td> <td style="text-align: right;">8.00</td> </tr> <tr> <td colspan="2">Total operating hours to date: 1,046.00</td> <td style="text-align: right;">Total 1.00</td> <td style="text-align: right;">16.00</td> </tr> </tbody> </table> |                              |                                          |                           |             | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A       | Bull Dozer           | 0.50 | 8.00 | N/A       | Skid Steerer with Power Rake | 0.50 | 8.00 | Total operating hours to date: 1,046.00 |  | Total 1.00 | 16.00 |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Description                  | Idle<br>Hours                            | Operating<br>Hours        |             |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Bull Dozer                   | 0.50                                     | 8.00                      |             |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |       |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Skid Steerer with Power Rake | 0.50                                     | 8.00                      |             |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |       |
| Total operating hours to date: 1,046.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                              | Total 1.00                               | 16.00                     |             |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |       |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |                                          |                           |             |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                              |                                          |                           |             |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |       |
| <b>CONTRACTOR CERTIFICATION</b> <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                              |                                          |                           |             |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |       |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              | DATE                                     | SUPERINTENDENT'S INITIALS |             |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                              |                                          |                           |             |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |       |

|                                                                                     |                                                                                                      |                                          |             |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |                                                                                                      | REPORT NUMBER<br>910                     | Page 1 of 2 |
|                                                                                     |                                                                                                      | DATE<br>26 Oct 2012 - Friday             |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |                                                                                                      | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             | WEATHER<br>Weather Caused No Delay<br>Temperature Min 50 °F, Max 60 °F; No Precipitation; 5 MPH Wind |                                          |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Provided oversight of Gatsby Grounds  
 Gatsby Grounds (sub-contractor to Moretrench) - Site Restoration Contractor

**Activities in Progress (List by Activity Number)**  
 DFW: Site Restoration / Demobilization

**Quality Control Inspections and Activities (List by Feature of Work)**  
 Sovereign conducted QC inspections of site restoration activities being conducted during the day.

**Did anything develop that may lead to a Change Order/Claim?**  
 No developments that may lead to a Change Order during the day.

**Were there any Delays in Work Progress today?**  
 There were no delays in work progress during the day.

**General Comments:**  
 Work Completed During the Day:

Sovereign: Provided project oversight of Gatsby Grounds (sub-contractor to Moretrench) during site restoration activities. Conducted photo documentation of restoration activities. Photograph IDs: 102612-01 through 102612-12.

Gatsby Grounds (sub-contractor to Moretrench): Conducted site restoration activities including the completeion of rebuilding of the berm in the vicinity of station 7+00. Final grading was completed in all disturbed area around the barrier wall with a soil conditioner and power-rake. Hydro-seeding was completed from the lead-in trench to approximately station 7+00.

Materials Brought on Site:

Hydro-seed

Equipment Brought on Site:

Hydro-seeding Truck

Additional Notes:

Additonal hydro-seed was needed to complete seeding in the northern portion of the distrubed areas around the barrier wall. Addtional seed has been ordered and completion of seeding is scheduled for the following week depending on site conditions and weather.

**Verbal Instructions given by Government:**  
 No other verbal instruction given during the day by the government.

**Safety Inspection / Safety Meetings:**  
 Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviuewed prior to start of work activties.

|                                                              |                                                         |
|--------------------------------------------------------------|---------------------------------------------------------|
| <b>PREP/INITIAL DATES</b>                                    | (Preparatory and initial dates held and advance notice) |
| <b>No preparatory or initial inspections were held today</b> |                                                         |



| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                              | REPORT NUMBER<br>910 <span style="float: right;">Page 2 of 2</span> |                           |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------------|---------------------------|---------------|----------------------|------------------------|--------------------|-----------|----------------------|------|------|-----------|------------------------------|------|------|-----------------------------------------|--|------------|------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              | DATE<br>26 Oct 2012 - Friday                                        |                           |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |      |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                              | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                            |                           |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |      |
| <b>ACTIVITY START/FINISH</b><br>No activities were started or finished today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                              |                                                                     |                           |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |      |
| <b>QC REQUIREMENTS</b><br>No QC requirements were completed today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                              |                                                                     |                           |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |      |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br>No QC Deficiency items were issued today<br>No Deficiency items were corrected today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                              |                                                                     |                           |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |      |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br>No contractors had their first or last day on site today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                              |                                                                     |                           |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |      |
| <b>LABOR HOURS</b><br>The following labor hours were Reported today: <table border="0" style="width: 100%; margin-top: 10px;"> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> <tr> <td>Moretrech</td> <td>LANDSCAPE CONTRACTOR</td> <td style="text-align: right;">2.0</td> <td style="text-align: right;">14.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">7.0</td> </tr> <tr> <td colspan="2">Total hours worked to date: 4,080.8</td> <td style="text-align: right;">Total 3.0</td> <td style="text-align: right;">21.0</td> </tr> </table>           |                              |                                                                     |                           | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | Moretrech | LANDSCAPE CONTRACTOR | 2.0  | 14.0 | Sovereign | SUPER - JOB                  | 1.0  | 7.0  | Total hours worked to date: 4,080.8     |  | Total 3.0  | 21.0 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Labor Classification         | Number of<br>Employees                                              | Hours<br>Worked           |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | LANDSCAPE CONTRACTOR         | 2.0                                                                 | 14.0                      |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | SUPER - JOB                  | 1.0                                                                 | 7.0                       |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |      |
| Total hours worked to date: 4,080.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                              | Total 3.0                                                           | 21.0                      |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |      |
| <b>EQUIPMENT HOURS</b><br>The following equipment hours were Reported today: <table border="0" style="width: 100%; margin-top: 10px;"> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle<br/>Hours</th> <th style="text-align: right;">Operating<br/>Hours</th> </tr> <tr> <td>N/A</td> <td>Hydro-Seeding Truck</td> <td style="text-align: right;">4.00</td> <td style="text-align: right;">3.00</td> </tr> <tr> <td>N/A</td> <td>Skid Steerer with Power Rake</td> <td style="text-align: right;">3.00</td> <td style="text-align: right;">4.00</td> </tr> <tr> <td colspan="2">Total operating hours to date: 1,053.00</td> <td style="text-align: right;">Total 7.00</td> <td style="text-align: right;">7.00</td> </tr> </table> |                              |                                                                     |                           | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A       | Hydro-Seeding Truck  | 4.00 | 3.00 | N/A       | Skid Steerer with Power Rake | 3.00 | 4.00 | Total operating hours to date: 1,053.00 |  | Total 7.00 | 7.00 |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Description                  | Idle<br>Hours                                                       | Operating<br>Hours        |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Hydro-Seeding Truck          | 4.00                                                                | 3.00                      |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Skid Steerer with Power Rake | 3.00                                                                | 4.00                      |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |      |
| Total operating hours to date: 1,053.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                              | Total 7.00                                                          | 7.00                      |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |      |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br>No accidents reported today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                              |                                                                     |                           |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |                                                                     |                           |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |      |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |                                                                     |                           |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |      |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                              | DATE                                                                | SUPERINTENDENT'S INITIALS |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                              |                                                                     | DATE                      |               |                      |                        |                    |           |                      |      |      |           |                              |      |      |                                         |  |            |      |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                       |                                          |             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                       | REPORT NUMBER<br>920                     | Page 1 of 2 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                       | DATE<br>05 Nov 2012 - Monday             |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                       | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | WEATHER<br>Weather Caused No Delay<br>Temperature Min 38 °F, Max 45 °F; No Precipitation; 10 MPH Wind |                                          |             |
| <b>QC NARRATIVES</b><br><br><b>Contractor/Subcontractor &amp; Area of Responsibility for work:</b><br>Sovereign - Provided oversight of Gatsby Grounds<br>Gatsby Grounds (sub-contractor to Moretrench) - Site Restoration Contractor<br><br><b>Activities in Progress (List by Activity Number)</b><br>DFW: Site Restoration / Demobilization<br><br><b>Quality Control Inspections and Activities (List by Feature of Work)</b><br>Sovereign conducted QC inspections of site restoration / hydro-seeding activities being conducted during the day.<br><br><b>Did anything develop that may lead to a Change Order/Claim?</b><br>No developments that may lead to a Change Order during the day.<br><br><b>Were there any Delays in Work Progress today?</b><br>There were no delays in work progress during the day.<br><br><b>General Comments:</b><br>Work Completed During the Day:<br><br>Sovereign: Provided project oversight of Gatsby Grounds (sub-contractor to Moretrench) during site restoration/hydro-seeding activities.<br><br>Gatsby Grounds (sub-contractor to Moretrench): Conducted hydro-seeding from approximately station 7+00. to approximately 100 feet north of station 8+50<br><br>Materials Brought on Site:<br><br>Hydro-seed<br><br>Equipment Brought on Site:<br><br>Hydro-seeding Truck<br><br>Additional Notes:<br><br>None.<br><br><b>Verbal Instructions given by Government:</b><br>No other verbal instruction given during the day by the government.<br><br><b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's reviewed prior to start of work activities. |                                                                                                       |                                          |             |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                       |                                          |             |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                       |                                          |             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                       |                                          |             |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                      | REPORT NUMBER<br>920                     |                 | Page 2 of 2               |          |                      |                        |                 |           |                      |     |     |           |             |     |     |                                     |  |           |     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------------------------------|-----------------|---------------------------|----------|----------------------|------------------------|-----------------|-----------|----------------------|-----|-----|-----------|-------------|-----|-----|-------------------------------------|--|-----------|-----|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                      | DATE<br>05 Nov 2012 - Monday             |                 |                           |          |                      |                        |                 |           |                      |     |     |           |             |     |     |                                     |  |           |     |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                      | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |                 |                           |          |                      |                        |                 |           |                      |     |     |           |             |     |     |                                     |  |           |     |
| <b>QC REQUIREMENTS</b><br>No QC requirements were completed today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                      |                                          |                 |                           |          |                      |                        |                 |           |                      |     |     |           |             |     |     |                                     |  |           |     |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br>No QC Deficiency items were issued today<br>No Deficiency items were corrected today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                      |                                          |                 |                           |          |                      |                        |                 |           |                      |     |     |           |             |     |     |                                     |  |           |     |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br>No contractors had their first or last day on site today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                      |                                          |                 |                           |          |                      |                        |                 |           |                      |     |     |           |             |     |     |                                     |  |           |     |
| <b>LABOR HOURS</b><br>The following labor hours were Reported today: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>LANDSCAPE CONTRACTOR</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">3.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">3.0</td> </tr> <tr> <td colspan="2">Total hours worked to date: 4,086.8</td> <td style="text-align: right;">Total 2.0</td> <td style="text-align: right;">6.0</td> </tr> </tbody> </table> |                      |                                          |                 |                           | Employer | Labor Classification | Number of<br>Employees | Hours<br>Worked | Moretrech | LANDSCAPE CONTRACTOR | 1.0 | 3.0 | Sovereign | SUPER - JOB | 1.0 | 3.0 | Total hours worked to date: 4,086.8 |  | Total 2.0 | 6.0 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Labor Classification | Number of<br>Employees                   | Hours<br>Worked |                           |          |                      |                        |                 |           |                      |     |     |           |             |     |     |                                     |  |           |     |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | LANDSCAPE CONTRACTOR | 1.0                                      | 3.0             |                           |          |                      |                        |                 |           |                      |     |     |           |             |     |     |                                     |  |           |     |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | SUPER - JOB          | 1.0                                      | 3.0             |                           |          |                      |                        |                 |           |                      |     |     |           |             |     |     |                                     |  |           |     |
| Total hours worked to date: 4,086.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                      | Total 2.0                                | 6.0             |                           |          |                      |                        |                 |           |                      |     |     |           |             |     |     |                                     |  |           |     |
| <b>EQUIPMENT HOURS</b><br>No equipment hours were Reported today<br>Total operating hours to date: 1,053.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                      |                                          |                 |                           |          |                      |                        |                 |           |                      |     |     |           |             |     |     |                                     |  |           |     |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br>No accidents reported today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                      |                                          |                 |                           |          |                      |                        |                 |           |                      |     |     |           |             |     |     |                                     |  |           |     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                      |                                          |                 |                           |          |                      |                        |                 |           |                      |     |     |           |             |     |     |                                     |  |           |     |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                      |                                          |                 |                           |          |                      |                        |                 |           |                      |     |     |           |             |     |     |                                     |  |           |     |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                      | DATE                                     |                 | SUPERINTENDENT'S INITIALS |          |                      |                        |                 |           |                      |     |     |           |             |     |     |                                     |  |           |     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                      |                                          |                 | DATE                      |          |                      |                        |                 |           |                      |     |     |           |             |     |     |                                     |  |           |     |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                       |                                          |             |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                       | REPORT NUMBER<br>924                     | Page 1 of 2 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                       | DATE<br>09 Nov 2012 - Friday             |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                       | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | WEATHER<br>Weather Caused No Delay<br>Temperature Min 35 °F, Max 45 °F; No Precipitation; 15 MPH Wind |                                          |             |
| <b>QC NARRATIVES</b><br><br><b>Contractor/Subcontractor &amp; Area of Responsibility for work:</b><br>Sovereign - Provided oversight of WSP Sells and conducted well development activities<br>WSP Sells (sub-contractor to Moretrench) - Survey Contractor<br><br><b>Activities in Progress (List by Activity Number)</b><br>DFW: Site Restoration / Demobilization<br><br><b>Did anything develop that may lead to a Change Order/Claim?</b><br>No developments that may lead to a Change Order during the day.<br><br><b>Were there any Delays in Work Progress today?</b><br>There were no delays in work progress during the day.<br><br><b>General Comments:</b><br>Work Completed During the Day:<br><br>Sovereign: Provided project oversight of WSP Sells (sub-contractor to Moretrench) during final as-built survey activities<br><br>Sovereign field staff developed piezometers PZ-12-05 and PZ-12-07 through PZ-12-10. All development activities were conducted in accordance with US EPA SOP #2044. All piezometers were purged using a wattera pump. Puring was conducted until turbidity readings of groundwater in each piezometer reached 50 NTUs or a two hour maxium purge time was reached. All development field data was collected and recored on Developement Data Forms.<br><br>WSP Sells (sub-contractor to Moretrench): Conducted a final survey of the limit of work area for the barrier wall construction. WSP shot topographic survey of the limit of work area that had been altered during construction and regraded during site restoration activities. WSP also shot location and elevation including Top of Casing elevation of the newly installed piezometers PZ-12-01 through PZ-12-10.<br><br>Materials Brought on Site:<br><br>None<br><br>Equipment Brought on Site:<br><br>Well Development Equipment: Water level meters, PID, Wattera Pumps, Generators, Tubing, Turbidity Meters, and YSI meters.<br><br>Additional Notes:<br><br>None.<br><br><b>Verbal Instructions given by Government:</b><br>No other verbal instruction given during the day by the government.<br><br><b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviuewed prior to start of work activities. |                                                                                                       |                                          |             |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                       |                                          |             |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                       |                                          |             |
| Empty space for additional notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                       |                                          |             |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                      | REPORT NUMBER<br>924 <span style="float: right;">Page 2 of 2</span> |                 |          |                      |                        |                 |           |          |     |      |           |                |     |      |           |             |     |     |                                     |  |           |      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|---------------------------------------------------------------------|-----------------|----------|----------------------|------------------------|-----------------|-----------|----------|-----|------|-----------|----------------|-----|------|-----------|-------------|-----|-----|-------------------------------------|--|-----------|------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                      | DATE<br>09 Nov 2012 - Friday                                        |                 |          |                      |                        |                 |           |          |     |      |           |                |     |      |           |             |     |     |                                     |  |           |      |
| CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                      |                                                                     |                 |          |                      |                        |                 |           |          |     |      |           |                |     |      |           |             |     |     |                                     |  |           |      |
| <b>QC REQUIREMENTS</b><br>No QC requirements were completed today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                      |                                                                     |                 |          |                      |                        |                 |           |          |     |      |           |                |     |      |           |             |     |     |                                     |  |           |      |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br>No QC Deficiency items were issued today<br>No Deficiency items were corrected today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                      |                                                                     |                 |          |                      |                        |                 |           |          |     |      |           |                |     |      |           |             |     |     |                                     |  |           |      |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br>No contractors had their first day on site today<br>Today was the last day on site for the following contractor:<br>Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                      |                                                                     |                 |          |                      |                        |                 |           |          |     |      |           |                |     |      |           |             |     |     |                                     |  |           |      |
| <b>LABOR HOURS</b><br>The following labor hours were Reported today: <table style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Moretrech</td> <td>SURVEYOR</td> <td style="text-align: right;">2.0</td> <td style="text-align: right;">14.0</td> </tr> <tr> <td>Sovereign</td> <td>FIELD ENGINEER</td> <td style="text-align: right;">2.0</td> <td style="text-align: right;">15.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">7.5</td> </tr> <tr> <td colspan="2">Total hours worked to date: 4,123.3</td> <td style="text-align: right;">Total 5.0</td> <td style="text-align: right;">36.5</td> </tr> </tbody> </table> |                      |                                                                     |                 | Employer | Labor Classification | Number of<br>Employees | Hours<br>Worked | Moretrech | SURVEYOR | 2.0 | 14.0 | Sovereign | FIELD ENGINEER | 2.0 | 15.0 | Sovereign | SUPER - JOB | 1.0 | 7.5 | Total hours worked to date: 4,123.3 |  | Total 5.0 | 36.5 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Labor Classification | Number of<br>Employees                                              | Hours<br>Worked |          |                      |                        |                 |           |          |     |      |           |                |     |      |           |             |     |     |                                     |  |           |      |
| Moretrech                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | SURVEYOR             | 2.0                                                                 | 14.0            |          |                      |                        |                 |           |          |     |      |           |                |     |      |           |             |     |     |                                     |  |           |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | FIELD ENGINEER       | 2.0                                                                 | 15.0            |          |                      |                        |                 |           |          |     |      |           |                |     |      |           |             |     |     |                                     |  |           |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | SUPER - JOB          | 1.0                                                                 | 7.5             |          |                      |                        |                 |           |          |     |      |           |                |     |      |           |             |     |     |                                     |  |           |      |
| Total hours worked to date: 4,123.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                      | Total 5.0                                                           | 36.5            |          |                      |                        |                 |           |          |     |      |           |                |     |      |           |             |     |     |                                     |  |           |      |
| <b>EQUIPMENT HOURS</b><br>No equipment hours were Reported today<br>Total operating hours to date: 1,053.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                      |                                                                     |                 |          |                      |                        |                 |           |          |     |      |           |                |     |      |           |             |     |     |                                     |  |           |      |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br>No accidents reported today                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                      |                                                                     |                 |          |                      |                        |                 |           |          |     |      |           |                |     |      |           |             |     |     |                                     |  |           |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                      |                                                                     |                 |          |                      |                        |                 |           |          |     |      |           |                |     |      |           |             |     |     |                                     |  |           |      |
| <b>CONTRACTOR CERTIFICATION</b> On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                      |                                                                     |                 |          |                      |                        |                 |           |          |     |      |           |                |     |      |           |             |     |     |                                     |  |           |      |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | DATE                 | SUPERINTENDENT'S INITIALS                                           | DATE            |          |                      |                        |                 |           |          |     |      |           |                |     |      |           |             |     |     |                                     |  |           |      |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                       |                                          |             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                       | REPORT NUMBER<br>927                     | Page 1 of 2 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                       | DATE<br>12 Nov 2012 - Monday             |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                       | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | WEATHER<br>Weather Caused No Delay<br>Temperature Min 40 °F, Max 60 °F; No Precipitation; 15 MPH Wind |                                          |             |
| <b>QC NARRATIVES</b><br><br><b>Contractor/Subcontractor &amp; Area of Responsibility for work:</b><br>Sovereign - Conducted well development activities<br><br><b>Activities in Progress (List by Activity Number)</b><br>DFW: Site Restoration / Demobilization<br><br><b>Did anything develop that may lead to a Change Order/Claim?</b><br>No developments that may lead to a Change Order during the day.<br><br><b>Were there any Delays in Work Progress today?</b><br>There were no delays in work progress during the day.<br><br><b>General Comments:</b><br>Work Completed During the Day:<br><br>Sovereign: Sovereign staff developed piezometers PZ-12-01 through 4 and PZ-12-06. All developement activities were conducted in accordance with US EPA SOP #2044. All piezometers were purged using a wattera pump. Puring was conducted until turbidity readings of groundwater in each piezometer reached 50 NTUs or a two hour maxium purge time was reached. All development field data was collected and recored on Development Data Forms.<br><br>Materials Brought on Site:<br><br>None<br><br>Equipment Brought on Site:<br><br>Well Development Equipment: Water level meters, PID, Wattera Pumps, Generators, Tubing, Turbidity Meters, and YSI meters.<br><br>Additional Notes:<br><br>None.<br><br><b>Verbal Instructions given by Government:</b><br>No other verbal instruction given during the day by the government.<br><br><b>Safety Inspection / Safety Meetings:</b><br>Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's eviuewed prior to start of work activties. |                                                                                                       |                                          |             |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                       |                                          |             |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                       |                                          |             |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                       |                                          |             |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                       |                                          |             |

| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                      | REPORT NUMBER<br>927                     |                           | Page 2 of 2 |          |                      |                        |                 |           |                |     |     |           |             |     |     |                                     |  |           |      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------------------------------|---------------------------|-------------|----------|----------------------|------------------------|-----------------|-----------|----------------|-----|-----|-----------|-------------|-----|-----|-------------------------------------|--|-----------|------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                      | DATE<br>12 Nov 2012 - Monday             |                           |             |          |                      |                        |                 |           |                |     |     |           |             |     |     |                                     |  |           |      |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                      | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |                           |             |          |                      |                        |                 |           |                |     |     |           |             |     |     |                                     |  |           |      |
| <b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                      |                                          |                           |             |          |                      |                        |                 |           |                |     |     |           |             |     |     |                                     |  |           |      |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>No contractors had their first or last day on site today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                      |                                          |                           |             |          |                      |                        |                 |           |                |     |     |           |             |     |     |                                     |  |           |      |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table border="0" style="width: 100%;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>Sovereign</td> <td>FIELD ENGINEER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">7.5</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">7.5</td> </tr> <tr> <td colspan="2">Total hours worked to date: 4,138.3</td> <td style="text-align: right;">Total 2.0</td> <td style="text-align: right;">15.0</td> </tr> </tbody> </table> |                      |                                          |                           |             | Employer | Labor Classification | Number of<br>Employees | Hours<br>Worked | Sovereign | FIELD ENGINEER | 1.0 | 7.5 | Sovereign | SUPER - JOB | 1.0 | 7.5 | Total hours worked to date: 4,138.3 |  | Total 2.0 | 15.0 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Labor Classification | Number of<br>Employees                   | Hours<br>Worked           |             |          |                      |                        |                 |           |                |     |     |           |             |     |     |                                     |  |           |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | FIELD ENGINEER       | 1.0                                      | 7.5                       |             |          |                      |                        |                 |           |                |     |     |           |             |     |     |                                     |  |           |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | SUPER - JOB          | 1.0                                      | 7.5                       |             |          |                      |                        |                 |           |                |     |     |           |             |     |     |                                     |  |           |      |
| Total hours worked to date: 4,138.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                      | Total 2.0                                | 15.0                      |             |          |                      |                        |                 |           |                |     |     |           |             |     |     |                                     |  |           |      |
| <b>EQUIPMENT HOURS</b><br><b>No equipment hours were Reported today</b><br>Total operating hours to date: 1,053.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                      |                                          |                           |             |          |                      |                        |                 |           |                |     |     |           |             |     |     |                                     |  |           |      |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                      |                                          |                           |             |          |                      |                        |                 |           |                |     |     |           |             |     |     |                                     |  |           |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                      |                                          |                           |             |          |                      |                        |                 |           |                |     |     |           |             |     |     |                                     |  |           |      |
| <b>CONTRACTOR CERTIFICATION</b> <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                      |                                          |                           |             |          |                      |                        |                 |           |                |     |     |           |             |     |     |                                     |  |           |      |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                      | DATE                                     | SUPERINTENDENT'S INITIALS | DATE        |          |                      |                        |                 |           |                |     |     |           |             |     |     |                                     |  |           |      |

|                                                                                     |                                                                                                      |                                          |             |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b> |                                                                                                      | REPORT NUMBER<br>935                     | Page 1 of 2 |
|                                                                                     |                                                                                                      | DATE<br>20 Nov 2012 - Tuesday            |             |
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                    |                                                                                                      | CONTRACT NUMBER<br>W912WJ-10-D-0003 0002 |             |
| CONTRACTOR<br>Sovereign Consulting Inc.                                             | WEATHER<br>Weather Caused No Delay<br>Temperature Min 30 °F, Max 40 °F; No Precipitation; 5 MPH Wind |                                          |             |

**QC NARRATIVES**

**Contractor/Subcontractor & Area of Responsibility for work:**  
 Sovereign - Conducted oversight of EQ NE and NE Liner Systems

EQ NE - Loading and Disposal of Waste and Concrete

NE Liner Systems - Landfill Liner Repair

**Activities in Progress (List by Activity Number)**  
 DFW: Site Restoration / Demobilization

**Did anything develop that may lead to a Change Order/Claim ?**  
 No developments that may lead to a Change Order during the day.

**Were there any Delays in Work Progress today?**  
 There were no delays in work progress during the day.

**General Comments:**  
 Work Completed During the Day:

Sovereign: Provided the oversight of EQ NE during the waste/concrete loading for disposal. Provided oversight of NE Liner Systems during the repair of the landfill liner around newly installed piezometers. Took photographic documentation of liner repairs. Photo IDs: 112012-01 and 112012-02.

EQ NE: Completed the loading and off-site disposal of the stockpiled waste and concrete excavated during the construction of the barrier wall. Waste loaded into a trailer for disposal at the Cassella landfill in Southbride, MA. Concrete loaded in a tri-axil truck for disposal/recycling at Boro Sand and Gravel in North Attleboro, MA. Trucking was completed by Goulet Trucking as a subcontractor to EQ NE. Area where waste and concrete was stockpiled was back-bladed with a loader following the completion of loading activities.

NE Liner Systems: Completed the repair of the landfill liner around piezometers PZ-12-02 through PZ-12-06. Repairs made with 40 mil PVC material and repairs seams were made with chemical agent. See photos 112012-01 and 112012-02 for details on repairs.

Material Brought on Site:

40 mil PVC material and chemical agent (glue).

Equipment Brought on Site:

Catapillar Loader

Additional Notes:

None.

**Verbal Instructions given by Government:**  
 No other verbal instruction given during the day by the government.

**Safety Inspection / Safety Meetings:**  
 Tailgate Safety Meeting held prior to start of day's work activities. Site HASP and applicable AHA's reviewed prior to start of work activities.



| <b>CONTRACTORS QUALITY CONTROL REPORT (QCR)</b><br><b>DAILY LOG OF CONSTRUCTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                          | REPORT NUMBER<br>935 <span style="float: right;">Page 2 of 2</span> |                    |               |                      |                        |                    |              |                          |      |      |                                         |                 |            |      |                  |                       |     |     |                  |          |     |     |           |             |     |     |                                     |  |           |      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---------------------------------------------------------------------|--------------------|---------------|----------------------|------------------------|--------------------|--------------|--------------------------|------|------|-----------------------------------------|-----------------|------------|------|------------------|-----------------------|-----|-----|------------------|----------|-----|-----|-----------|-------------|-----|-----|-------------------------------------|--|-----------|------|
| PROJECT<br>Shepley's Landfil, Devens Cutoff Wall                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          | DATE<br>20 Nov 2012 - Tuesday                                       |                    |               |                      |                        |                    |              |                          |      |      |                                         |                 |            |      |                  |                       |     |     |                  |          |     |     |           |             |     |     |                                     |  |           |      |
| CONTRACT NUMBER<br>W912WJ-10-D-0003 0002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                          |                                                                     |                    |               |                      |                        |                    |              |                          |      |      |                                         |                 |            |      |                  |                       |     |     |                  |          |     |     |           |             |     |     |                                     |  |           |      |
| <b>PREP/INITIAL DATES</b> (Preparatory and initial dates held and advance notice)<br><b>No preparatory or initial inspections were held today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                          |                                                                     |                    |               |                      |                        |                    |              |                          |      |      |                                         |                 |            |      |                  |                       |     |     |                  |          |     |     |           |             |     |     |                                     |  |           |      |
| <b>ACTIVITY START/FINISH</b><br><b>No activities were started or finished today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                          |                                                                     |                    |               |                      |                        |                    |              |                          |      |      |                                         |                 |            |      |                  |                       |     |     |                  |          |     |     |           |             |     |     |                                     |  |           |      |
| <b>QC REQUIREMENTS</b><br><b>No QC requirements were completed today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                          |                                                                     |                    |               |                      |                        |                    |              |                          |      |      |                                         |                 |            |      |                  |                       |     |     |                  |          |     |     |           |             |     |     |                                     |  |           |      |
| <b>QA/QC DEFICIENCY</b> (Describe QC Deficiency items issued, Report QC and QA Deficiency items corrected)<br><b>No QC Deficiency items were issued today</b><br><b>No Deficiency items were corrected today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          |                                                                     |                    |               |                      |                        |                    |              |                          |      |      |                                         |                 |            |      |                  |                       |     |     |                  |          |     |     |           |             |     |     |                                     |  |           |      |
| <b>CONTRACTORS ON SITE</b> (Report first and/or last day contractors were on site)<br><b>Today was the first day on site for the following 2 contractors:</b><br>EQ Northeast<br>NE Liner Systems<br><b>Today was the last day on site for the following 2 contractors:</b><br>EQ Northeast<br>NE Liner Systems                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                          |                                                                     |                    |               |                      |                        |                    |              |                          |      |      |                                         |                 |            |      |                  |                       |     |     |                  |          |     |     |           |             |     |     |                                     |  |           |      |
| <b>LABOR HOURS</b><br><b>The following labor hours were Reported today:</b> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Employer</th> <th style="text-align: left;">Labor Classification</th> <th style="text-align: right;">Number of<br/>Employees</th> <th style="text-align: right;">Hours<br/>Worked</th> </tr> </thead> <tbody> <tr> <td>EQ Northeast</td> <td>HEAVY-EQUIPMENT OPERATOR</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">2.5</td> </tr> <tr> <td>EQ Northeast</td> <td>PROJECT MANAGER</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">2.0</td> </tr> <tr> <td>NE Liner Systems</td> <td>LABOR-CREW SUPERVISOR</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">4.0</td> </tr> <tr> <td>NE Liner Systems</td> <td>LABORERS</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">4.0</td> </tr> <tr> <td>Sovereign</td> <td>SUPER - JOB</td> <td style="text-align: right;">1.0</td> <td style="text-align: right;">6.0</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total hours worked to date: 4,156.8</td> <td style="text-align: right; border-top: 1px solid black;">Total 5.0</td> <td style="text-align: right; border-top: 1px solid black;">18.5</td> </tr> </tbody> </table> |                          |                                                                     |                    | Employer      | Labor Classification | Number of<br>Employees | Hours<br>Worked    | EQ Northeast | HEAVY-EQUIPMENT OPERATOR | 1.0  | 2.5  | EQ Northeast                            | PROJECT MANAGER | 1.0        | 2.0  | NE Liner Systems | LABOR-CREW SUPERVISOR | 1.0 | 4.0 | NE Liner Systems | LABORERS | 1.0 | 4.0 | Sovereign | SUPER - JOB | 1.0 | 6.0 | Total hours worked to date: 4,156.8 |  | Total 5.0 | 18.5 |
| Employer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Labor Classification     | Number of<br>Employees                                              | Hours<br>Worked    |               |                      |                        |                    |              |                          |      |      |                                         |                 |            |      |                  |                       |     |     |                  |          |     |     |           |             |     |     |                                     |  |           |      |
| EQ Northeast                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | HEAVY-EQUIPMENT OPERATOR | 1.0                                                                 | 2.5                |               |                      |                        |                    |              |                          |      |      |                                         |                 |            |      |                  |                       |     |     |                  |          |     |     |           |             |     |     |                                     |  |           |      |
| EQ Northeast                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | PROJECT MANAGER          | 1.0                                                                 | 2.0                |               |                      |                        |                    |              |                          |      |      |                                         |                 |            |      |                  |                       |     |     |                  |          |     |     |           |             |     |     |                                     |  |           |      |
| NE Liner Systems                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | LABOR-CREW SUPERVISOR    | 1.0                                                                 | 4.0                |               |                      |                        |                    |              |                          |      |      |                                         |                 |            |      |                  |                       |     |     |                  |          |     |     |           |             |     |     |                                     |  |           |      |
| NE Liner Systems                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | LABORERS                 | 1.0                                                                 | 4.0                |               |                      |                        |                    |              |                          |      |      |                                         |                 |            |      |                  |                       |     |     |                  |          |     |     |           |             |     |     |                                     |  |           |      |
| Sovereign                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | SUPER - JOB              | 1.0                                                                 | 6.0                |               |                      |                        |                    |              |                          |      |      |                                         |                 |            |      |                  |                       |     |     |                  |          |     |     |           |             |     |     |                                     |  |           |      |
| Total hours worked to date: 4,156.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                          | Total 5.0                                                           | 18.5               |               |                      |                        |                    |              |                          |      |      |                                         |                 |            |      |                  |                       |     |     |                  |          |     |     |           |             |     |     |                                     |  |           |      |
| <b>EQUIPMENT HOURS</b><br><b>The following equipment hours were Reported today:</b> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Serial Number</th> <th style="text-align: left;">Description</th> <th style="text-align: right;">Idle<br/>Hours</th> <th style="text-align: right;">Operating<br/>Hours</th> </tr> </thead> <tbody> <tr> <td>N/A</td> <td>Loader</td> <td style="text-align: right;">0.00</td> <td style="text-align: right;">2.50</td> </tr> <tr> <td colspan="2" style="border-top: 1px solid black;">Total operating hours to date: 1,055.50</td> <td style="text-align: right; border-top: 1px solid black;">Total 0.00</td> <td style="text-align: right; border-top: 1px solid black;">2.50</td> </tr> </tbody> </table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                          |                                                                     |                    | Serial Number | Description          | Idle<br>Hours          | Operating<br>Hours | N/A          | Loader                   | 0.00 | 2.50 | Total operating hours to date: 1,055.50 |                 | Total 0.00 | 2.50 |                  |                       |     |     |                  |          |     |     |           |             |     |     |                                     |  |           |      |
| Serial Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Description              | Idle<br>Hours                                                       | Operating<br>Hours |               |                      |                        |                    |              |                          |      |      |                                         |                 |            |      |                  |                       |     |     |                  |          |     |     |           |             |     |     |                                     |  |           |      |
| N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Loader                   | 0.00                                                                | 2.50               |               |                      |                        |                    |              |                          |      |      |                                         |                 |            |      |                  |                       |     |     |                  |          |     |     |           |             |     |     |                                     |  |           |      |
| Total operating hours to date: 1,055.50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          | Total 0.00                                                          | 2.50               |               |                      |                        |                    |              |                          |      |      |                                         |                 |            |      |                  |                       |     |     |                  |          |     |     |           |             |     |     |                                     |  |           |      |
| <b>ACCIDENT REPORTING</b> (Describe accidents)<br><b>No accidents reported today</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                          |                                                                     |                    |               |                      |                        |                    |              |                          |      |      |                                         |                 |            |      |                  |                       |     |     |                  |          |     |     |           |             |     |     |                                     |  |           |      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                          |                                                                     |                    |               |                      |                        |                    |              |                          |      |      |                                         |                 |            |      |                  |                       |     |     |                  |          |     |     |           |             |     |     |                                     |  |           |      |
| <b>CONTRACTOR CERTIFICATION</b> <b>On behalf of the contractor, I certify that this Report is complete and correct and all equipment and material used and work performed during this Reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |                                                                     |                    |               |                      |                        |                    |              |                          |      |      |                                         |                 |            |      |                  |                       |     |     |                  |          |     |     |           |             |     |     |                                     |  |           |      |
| QC REPRESENTATIVE'S SIGNATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | DATE                     | SUPERINTENDENT'S INITIALS                                           | DATE               |               |                      |                        |                    |              |                          |      |      |                                         |                 |            |      |                  |                       |     |     |                  |          |     |     |           |             |     |     |                                     |  |           |      |

# MEMO

**To: Mr. Randal LeCuyer, USACE Construction Representative**

**From: Sovereign Consulting, Inc.**

**Date: 11 January, 2013**

**Re: Barrier Wall Construction Final Inspection**

---

The purpose of the memorandum is to present details of a Final Inspection for activities conducted by Sovereign Consulting Inc. (Sovereign) under contract #W912WJ-10-D-0003, Task Order 0002, Task 25 as part of the Barrier Wall Construction Non-Time Critical Removal Action at the Shepley's Hill Landfill (SHL) at the former Fort Devens Army Installation (Fort Devens) located in Devens, Massachusetts (MA).

On 28 November, 2012 a Final Inspection for the Barrier Wall Construction at the SHL was conducted in accordance with the project Contractor Quality Control Plan (CQCP). Present during the inspection was Mr. Jonathan Chaffee, Sovereign On-site QC Manager and yourself. Weather conditions during the inspection were clear with temperatures in the 40 degree Fahrenheit temperature range. No visibility or ground cover issues were present during the inspection.

During the inspection a walk-through of the limit of work associated with the barrier wall construction was completed and results of site restoration activities reviewed. During the inspection no major comments or further instructions were presented to Sovereign by the USACE. Based on the results of the Final Inspection and the issuance of email correspondence on 28 November, 2012 from you to Ms. Ellen Iorio, PE (USACE Project Manger), Sovereign understands that all work items related to the construction of the barrier wall at SHL are considered complete. Please confer with acceptance of this memo

## Chaffee, Jonathan

---

**From:** Lecuyer, Randal J NAE [Randal.J.Lecuyer@usace.army.mil]  
**Sent:** Thursday, January 03, 2013 4:13 PM  
**To:** Chaffee, Jonathan  
**Cc:** Hevner, Thomas; Mothershed, Zachary J NAE  
**Subject:** RE: Barrier Final Inspection Memo (UNCLASSIFIED)

Classification: UNCLASSIFIED  
Caveats: NONE

Jonathan,

The final inspection meeting minutes are accepted.

Thank you,

Randy

-----Original Message-----

From: Chaffee, Jonathan [mailto:jchaffee@sovcon.com]  
Sent: Thursday, January 03, 2013 2:06 PM  
To: Lecuyer, Randal J NAE  
Cc: Hevner, Thomas  
Subject: Barrier Final Inspection Memo

Randy,

Sovereign received your 11/29/12 email sent to Ellen notifying her that a final inspected had been conducted for the Barrier Wall Construction at the project was considered 100% complete. However, it appears that we also have to close the loop in accordance with Section 7.3 of the project CQCP. That section specifies that Sovereign must issue meetings of the final inspection and they must be accepted by USACE.

As such, please review the attached memo and advise on acceptance of the meeting minutes.

Thanks

Jonathan

Jonathan J. Chaffee

Project Manager | email: jchaffee@sovcon.com <mailto:mhanlon@sovcon.com>

phone: 508-339-3200 | fax: 508-339-3248

Sovereign Consulting Inc.

16 Chestnut Street, Suite 520

Foxborough, MA 02035

www.sovcon.com <http://www.sovcon.com/>

Science. Service. Solutions.

PLEASE NOTE: All information transmitted with and contained in this correspondence contains confidential, proprietary or legally privileged information and is intended for use only by the person or entity to which it is addressed. Any review, retransmission, dissemination or other use of, or taking of any action in reliance upon this information by persons or entities other than the intended recipient is prohibited. If you received this communication in error, please notify the sender immediately. Thank you.

Classification: UNCLASSIFIED  
Caveats: NONE

---

**Response to 10 April 2013 MassDEP Comments on  
DRAFT REMOVAL ACTION COMPLETION REPORT  
SHEPLEY HILL LANDFILL BARRIER WALL  
Former Fort Devens Army Installation  
February 2013**

---

**Comment 1** – Section 4.5: For future reference, the report should include a brief summary of the work conducted to design the backfill material (associated data provided in Appendix A).

*Response:* A Section 3.4 has been added to the Removal Action Completion Report (RACR) detailing the backfill material design.

**Comment 2** – Section 4.6.3: Statements indicating that MassDEP agreed with the placement of piezometer screens should be corrected or deleted. MassDEP's August 28, 2012 comments on the removal action workplan included the recommendation to place screens across the water table so that the piezometers could be used to determine cross-wall head differences and assess lateral groundwater flow directions. Because the piezometers were not screened across the water table, water level measurements may not be reliable for determining lateral flow directions and arsenic flux. To address this uncertainty, an assessment should be conducted to determine whether or not water level measurements obtained from these piezometers are representative of the water table, and if they are not, to determine what additional water table control may be needed to assess flow directions and flux.

*Response:* This section has been revised to remove the reference to MassDEP concurrence. However, the Army maintains that the existing construction of the barrier wall piezometer screens is appropriate to determine lateral flow direction across the wall as the aquifer is located in an extremely homogenous medium sand. Hydrogeologically, in an aquifer with no vertical anisotropy with well screens and risers penetrating no confining layers, well screens placed at the surface, in the middle of the aquifer or near the bottom of the aquifer will all result in consistent, reliably groundwater measurements.

**Comment 3** – Appendix F appears to be incomplete; results from one of the 18 backfill samples were not included.

*Response:* Appendix F had been amended to include results of all 18 backfill samples.

---

**Response to 12 April 2013 EPA Comments on  
DRAFT REMOVAL ACTION COMPLETION REPORT  
SHEPLEY HILL LANDFILL BARRIER WALL  
Former Fort Devens Army Installation  
February 2013**

---

**General Comments:**

**Comment 1** - In EPA's May 22, 2012 comment on the Draft Removal Action Work Plan, General Comment 1 referred to EPA Region 1's Office of Site Remediation and Restoration "*Clean and Greener Policy for Contaminated Sites*" and EPA Fact Sheets on Green Remediation Best Management Practices. EPA's comment requested that Army conduct a quantitative or qualitative analysis on whether any implemented Green Remediation changes resulted in reductions to GHG emissions and/or resource use and that Army report this data in the Removal Action Completion Report. Army's response explained that a third party Green and Sustainable Remediation (GSR) study was performed on the Barrier Wall remedy by the US Army Engineering and Support Center, Huntsville (USAESCH), Environmental and Munitions Center of Expertise (EM CX), pursuant to the Department of Defense (DoD) Memorandum "*Consideration of Green and Sustainable Remediation Practices in the Defense Environmental Restoration Program*" (DoD, 2009) and that the results of this evaluation were incorporated into the design. Please add a section into the report to discuss the implemented Green Remediation elements that were incorporated into the design and include, at least, a qualitative analysis on resultant reductions to GHG emissions and/or resource use.

Response: A statement has been included under Section 3.3 of the RACR, stating that the results of a third party Green and Sustainable Remediation (GSR) study on the proposed Barrier Wall remedy as well as other alternatives evaluated during the FFS, performed by the US Army Engineering and Support Center, Huntsville (USAESCH), Environmental and Munitions Center of Expertise (EM CX), pursuant to the Department of Defense (DoD) Memorandum "*Consideration of Green and Sustainable Remediation Practices in the Defense Environmental Restoration Program*" (DoD, 2009) was incorporated into the design.

*It is noted that reductions in GHG emissions and/or resource use was only associated with the heavy diesel power equipment and transportation of borrow material which was provided via a local quarry. As such, a qualitative analysis on resultant reductions to GHG emissions and/or resource use is not appropriate for this scenario and therefore not included.*

**Comment 2** - Overall, the report does not discuss or elaborate on the results of field and quality control data and whether the barrier wall construction adhered to the design as outlined in the 100% Design Submittal and specifications. Nor does it discuss whether the removal action objectives were satisfied. In addition, there is no discussion of any changes to the design that may have been made based on field conditions. Revise the report to include these discussions.

Response: Section 6.0 and associated subsections discuss the both on-site and off-site quality control procedures and testing completed throughout the construction of the barrier wall. Section 6.0

*and associated subsections have been revised to include language elaborating on the results of the quality control data. Additionally, results of all on-site and off-site quality control procedures and testing are included in Appendix E through J.*

*To address the comment on whether the removal action objectives were satisfied, the following statement has been added to Section 11.0 of the RACR:*

*“The installation of the barrier was completed in accordance with the design, set forth in the RAWP, to provide a low permeable barrier from ground surface to the top of competent bedrock in order to mitigate arsenic-in-groundwater flux from SHL to Red Cove/Plow Shop Pond. Results of the removal actions performance monitoring program will be presented and incorporated in the SHL Long-term Monitoring and Maintenance Plan (LTMMMP) Update in fall 2013.”*

*An additional section (Section 4.7) has been added to the RACR documenting modifications made during constructions.*

#### **Specific Comments:**

**Comment 1** - The report states, “The predominant source of the dissolved arsenic emanating from the landfill appears to be naturally occurring arsenic within the aquifer sands and bedrock materials.” As repeatedly stated by EPA in past correspondence, although it may be demonstrated that the mass of arsenic in the overburden soil is larger than the mass of arsenic in the landfill waste, available data clearly show that the landfill waste contains arsenic, and the highest concentration of arsenic in the waste is equal to the highest concentrations found in the soil. Therefore, it must be assumed that landfill waste is contributing arsenic to site groundwater. As further noted by EPA in past correspondence, while recognizing that natural conditions do play a role, EPA does not agree with the Army’s conclusions that arsenic in the aquifer materials is the primary, or predominant, source of dissolved arsenic in groundwater.

*Response: It is noted that the Army disagrees with EPA’s position for the reasons documented in the SAR (Sovereign, 2011), the Army’s Statement of Army Position Following the Withdrawal of the Draft Final Focused Feasibility Study For Shepley’s Hill Landfill, Devens, MA (August 2012), and the scientific publications, that all clearly support the Army’s CSM for SHL.*

**Comment 2** - Section 2.0, Page 3: Paragraphs 3 and 4 discuss Army’s AOC72 risk assessment. As detailed in EPA’s correspondence throughout the AOC72 RI process, EPA disagrees with the Army’s risk assessment language. EPA concludes that the weight of evidence provided in the AOC72 RI supports the conclusion that arsenic and ammonia are likely to be causally associated with adverse ecological impacts in Red Cove. Therefore, EPA concludes that actionable risk under CERCLA has been demonstrated for the Red Cove area of the pond and that risks are likely attributable to Army sources.

*Response: Comment noted, however the paragraphs noted in Section 2.0, Page 3 are an accurate summary of the risk from the weight of evidence put forth in the RI (AMEC, 2010). As such, the Army does not plan to alter the language noted.*

**Comment 3 - Section 4.5.1 and Figure 3, Barrier As-Built Profile:** The report should discuss the differences in bedrock depths depicted in the *Interpretive Subsurface Profile Along Vertical Hydraulic Barrier* (Sheet 6, 100% Design Submission) and Figure 3. Based on review of the report, it appears that subsurface conditions encountered in the field were not consistent with anticipated conditions. Comment on the reasons for the differences and whether the barrier wall meets the design intent to reach competent bedrock and how these differences in bottom elevation depths may potentially impact the performance of the barrier wall.

*Response: As requested a discussion on the differences in bedrock depths between the Interpretive Subsurface Profile Along Vertical Hydraulic Barrier (Sheet 6, 100% Design Submission) and the actual bedrock profile, depicted on Figure 3, have been included in Section 4.5.1 of the RACR.*

**Comment 4 - Section 4.5.1 and Figure 2, Barrier Wall Site Plan:** Section 4.5.1 of the report indicates that station locations were established every 10 feet. However, the figure shows stations at every 100 feet. Please clarify.

*Response: As stated in Specification Section 01351, Paragraph 3.7 excavation and backfill soundings were required to be taken every 20 feet along the trench centerline using a weighted tape. In order to better ensure clean contact with competent bedrock throughout the entire excavation of the trench, we requested the contractor to supersede the specifications and conducted soundings and determined refusal every 10 feet along the trench centerline using a weighted tape as described in Section 4.5.1 of the Draft RACR. The refusal depths at each 10 foot section were used to develop an as-built vertical profile included as Figure 3 of the RACR.*

*Figure 2 is not intended to represent these 10 foot stations as the figure is a general aerial photograph plan meant to illustrate the location of the barrier wall within the Shepley's Hill Landfill and the locations of the barrier in relations to Red Cove/Plow Shop Pond. As-Built Survey plans included as Figure 5 and Figure 6 in the RACR denote 50 and 100 hundred foot station locations professionally surveyed by WSP Sells.*

**Comment 5 - Section 4.5.1 and Appendix E – Results of On-Site QC measurements:**

- Moretrench Reports: There are instances at which the bentonite slurry results (viscosity, density, filtrate loss) are outside the acceptable criteria (see results for 8/20 8/23, 8/27, 8/28, 8/29, 8/30, 8/31, 9/4). Provide comments to address corrective actions and/or the rationale for acceptance of these data.
- There are instances in which Moretrench backfill slope trench depths and quantity of readings do not correlate with Contractors Quality Control Report (QCR) (i.e., 8/20, 8/21 “end of shift” vs. “final trench depths”). Explain the reason for the discrepancies.



Response:

- Bentonite slurry values included under the "Requirement" column on Moretrench Daily QC reports are considered action levels, where adjustments to the slurry would be required following the acknowledgement of the on-site QC testing results. Adjustments to the slurry were made by Moretrench following acknowledgement of the on-site QC testing results outside of the actions levels. Adjustments completed by Moretrench to return the characteristics of the slurry back to below actions levels included the addition of fresh slurry to the trench.
- Moretrench's backfill slope "end of shift" soundings do not correlate with the Contractors QCR "final trench depths" because these values are a measurement of two different parameters. The "final trench depths" included in the Contractors QCR are the depths at which refusal was determined for specific stations by the Engineer during that specific work day. The Moretrench backfill slope "end of shift" soundings of the trench are conducted to determine the location and slope of backfill material in the trench at the end of each work day. The soundings at some locations will not correlate as backfill is added to the trench throughout the work shift. For example, comparing the QCR final trench depth (20.5') at station 1+00 to the Moretrench end of shift value (18.0') on 8/20/12 a difference 2.5' can be seen. This difference is due to the fact that refusal was determined to be at 20.5' at station 1+00 early within the work shift and backfill material, which was added to the trench throughout the day, had slide as expected and was present at station 1+00 by the end of the work shift. Comparing "final trench depths" and "end of shift" soundings at station 1+70 for 8/20/13 it can be seen that both soundings are equal (27.0'). Refusal was determined to be at 27.0' at station 1+70 late within the work shift and backfill material had and was not present at station 1+70 by the end of the work shift.

**Comment 6 - Sections 6.1.2, 6.1.3 and Appendix J (QCRs):**

- 8/15/2012: Two inches of precipitation was noted. There are no comments addressing these conditions. Describe how weather conditions may have potentially affected site activities.
- 8/28/2012: One of the notes indicates that trench soundings (for bedrock) recorded in the morning differed from soundings conducted at the end of the day (by 2 feet) and may have been attributed to sliding of backfill. Please elaborate and consider adding a discussion to the report to address these findings.
- 8/29/2012: The report indicates that the depth of bedrock (vicinity of Station 4+50) was encountered at an unanticipated depth as compared to specifications, based on boring log data. Please elaborate and consider adding a section to the report to address these findings. (Refer to Specific Comment #3).

Response:

- After reviewing historical meteorological data for 8/15/2012 it was determined that the two (2) inches of precipitation noted on the Contractor QCR was a misprint. The review of the historical meteorological data determined that 0.46 inches of precipitation was received on 8/15/12. As noted in the 8/15/12 Contractor QCR a majority of the work completed during

- the day by Moretrench included continued mobilization and site preparatory activities along with mixing and filling of frac-tanks with slurry. The only excavation activities conducted during the day consisted of the excavation of the lead-in trench ceasing at station 0+00. As a majority of the 8/15/2012 work shift included mobilizations activities and only excavation of the lead-in trench was completed towards the end of the work shift the 0.46 inches of precipitation received during the day would have no potential effects on the constructability of the barrier wall. As noted as been added to the 8/15/2012 QCR included in Appendix J to amend the amount of precipitation received at the site during the work shift.
- The 8/28/12 "start of shift" sounding of station 3+20 (20.5') differed from the 8/27/12 "end of shift" sounding (22.4') by 1.9' feet. On the morning of 8/28/12 the sides of the trench in the vicinity of station 3+20 were inspected by the Engineer. As noted in the 8/28/12 Contractor QCR, the inspection revealed no evidence of slough or cave-in of the trench in this area. It was concluded by the Engineer that due to the lack of evidence of sloughing or cave-in that backfill likely slid from stations 3+00 and 3+10 to station 3+20 during the time between the end of the work shift on 8/27/12 and the start of the work shift on 8/28/12. Other evidence supporting the sliding of backfill includes shallower trench depth soundings at stations 3+00 and 3+10 at the end of the shift on 8/27/12 when compared to trench depth sounds during the start of the shift on 8/28/12. It should also be noted that refusal for station 3+20 was determined by the Engineer to be at 34.5' on 8/23/12. Backfill material had been present at station 3+20 since the "end of the shift" soundings on 8/23/12 (32.7').
  - As noted in the 8/29/12 Contractor QCR, a lengthy discussion was held between Sovereign, AMEC, and the USACE about refusal depth at station 4+50. During discussions boring logs and working platform elevations were reviewed in detail. It was concurred that the area of weathered bedrock indicated on the Interpretive Subsurface Profile Along Hydraulic Barrier (Sheet 6, 90% Design Submission) was extrapolated from two (2) boring logs in the vicinity of station 4+50. Boring SHL-11-02 had indicated evidence of weathered bedrock. Boring SHL-11-02 had an approximate off-set of twenty (20) feet from the barrier wall alignment. Boring SHL-12-06 which has an approximate off-set of zero (0) feet from the barrier wall alignment did not indicate evidence of weathered bedrock and a depth of bedrock at 42 feet below ground surface (bgs). Moretrench was unable to excavate deeper than 39.4 feet bgs at station 4+50 following two and half hours of ripping on the station. Additionally, Moretrench worked the station from both directions of the vertex with the excavator. It was determined in the field by Sovereign, AMEC, and the USACE, that Moretrench would work the area for another half an hour the following day and if no progress in a downward trend was made then it would be determined that refusal at station 4+50 had been met. This was completed and Moretrench was not able to excavate past 39.4 feet bgs. It should also be noted that the weather bedrock removed from Interpretive Subsurface Profile Along Hydraulic Barrier (Sheet 6, 100% Design Submission). The above language as been added to Section 6.1.2 of the RACR.

**Comment 7 - Figure 3, As-Built Profile:** Well number "P2-12-08" is shown twice. Please determine if one of the identifiers should be "P2-12-06".

Response: Figure 3, As-Built Profile has been amended to correctly depict the locations of PZ-12-06 and PZ-12-08.

**Comment 8 - Figure 5, As-Built Survey:** *Revise the scale of the figure to match the Restoration and Final Conditions Plan (Sheet 5, 100% Design Submission) for comparison purposes and to improve legibility.*

Response: *The scale of Figure 5, As-Built Survey has been amended to improve legibility. Additionally a Figure 6, Enlarged As-Built Survey has been added to the RACR.*

---

**Response to 28 May 2013 EPA Follow-up Comments on  
DRAFT REMOVAL ACTION COMPLETION REPORT  
SHEPLEY HILL LANDFILL BARRIER WALL  
Former Fort Devens Army Installation  
February 2013**

---

**General Comments:**

**EPA Response to RTC General Comment 2** - EPA will need to review the new Section 4.7 upon submittal of the Draft Final RACR.

Response: Comment noted.

**Specific Comments:**

**EPA Response to RTC Specific Comment 3** - EPA will need to review revised Section 4.5.1, upon submittal of the Draft Final RACR.

Response: Comment noted.

**EPA Response to RTC Specific Comment 4** - Please note the term “station” is confusing in the report, since it is used for measuring points, as well as for alignments. Please consider using a different terminology for the measuring point, or add the explanation provided in the responses to the report.

Response: Since the term “station” is used repeatedly in the daily QC Logs as well as other places, we believe it will provide more confusion rather than a benefit in changing the terminology in the report; therefore we have included an explanation of the term in Section 4.5.1 of the Draft Final report.

**EPA Response to RTC Specific Comment 5** - Please add the explanation in the response to Section 4.5.1 of the report and elaborate on the adjustments that were made to the slurry. Consider including a list of those dates for which QC testing results were outside of the action levels and detailing the specific adjustments that were made to the slurry.

Response: The following explanation has been added to Section 6.1.2 rather than Section 4.5.1 of the Draft Final report as Section 6.1.2 details field quality control testing conducted during slurry wall installation as Section 4.5.1 details construction of the slurry wall:

*“As discussed in **Section 4.5.1**, results of on-site slurry testing were compared to action levels set by project specifications. In the event that results of on-site slurry testing were outside of the action levels, proper adjustments to the slurry within the trench were made by Moretrench to return the characteristics of the slurry back to below actions levels, accomplished by the addition of fresh slurry from the mixing frac-tanks into the trench. All results of on-site QC slurry testing were found by the AMEC project engineer to be acceptable and meet the required project criteria.”*

Army's response provides clarification, since the report was unclear on the "final trench sounding" and "final trench depths" as documented in the Contractor's QCR. Add the explanation included in the response to the report and provide clarification on the "end of shift". In addition, EPA requests that Army prepare a summary table that includes: (a) Station/end of shift sounding, (b) final trench depths, (c) date, and (d) notes

*Response: As requested explanations provided in the response have been added to Section 4.5.1 of the Draft Final report to clarify "Final Trench Depths" documented in the Contractor's QCR and Section 6.1.2 to clarify the Backfill Slope "start of shift" and "end of shift" soundings documented within Moretrench QC Reports. The Army is of the opinion that a summary table documenting station/end of shift soundings, final trench depths, date, and notes is not necessary as all this information has been provided within report Figures and Appendices and is most easily understood and interpreted in the Figures.*

---

**Response to 17 July 2013 MassDEP Comments on  
DRAFT FINAL REMOVAL ACTION COMPLETION REPORT  
SHEPLEY HILL LANDFILL BARRIER WALL  
Former Fort Devens Army Installation  
June 2013**

---

**Comment 1** - Section 4.6.3 and 6.3: Text suggesting that MassDEP approved or endorsed the piezometer screen placements (“Based on follow-up discussions with the MassDEP...”; “As agreed upon with the regulators...”; and “...parameters negotiated with all pertinent parties.”) should be deleted from the report. MassDEP’s recommendations for screen placements were conveyed with the August 28, 2012 comments on the removal action workplan.

*Response:* Prior to the installation of the piezometers along the barrier wall, discussions were held with the MassDEP and the EPA regarding piezometer screen placements. The Army maintains that the current piezometer screen placement depths will yield accurate water level data along the barrier wall that can be utilized with other water level data already being collected due to the homogeneity of the formation and lack of confining layers. However, the indicated sections of the text have been revised to remove suggestions that MassDEP approved or endorsed the piezometer screen placements.

**Comment 2** - Appendix F appears to be incomplete; results from one of the 18 backfill samples were not included.

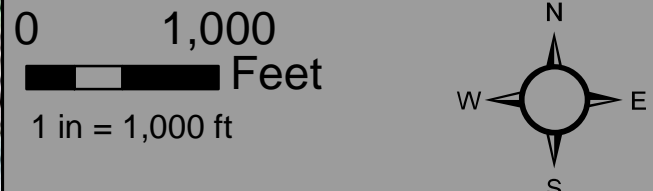
*Response:* Appendix F had been amended to include the results for sample BFM-21. Results of all 18 backfill samples are now included in Appendix F.





# FIGURE 1 SITE LOCUS

FORT DEVENS  
AYER, MASSACHUSETTS



## Legend

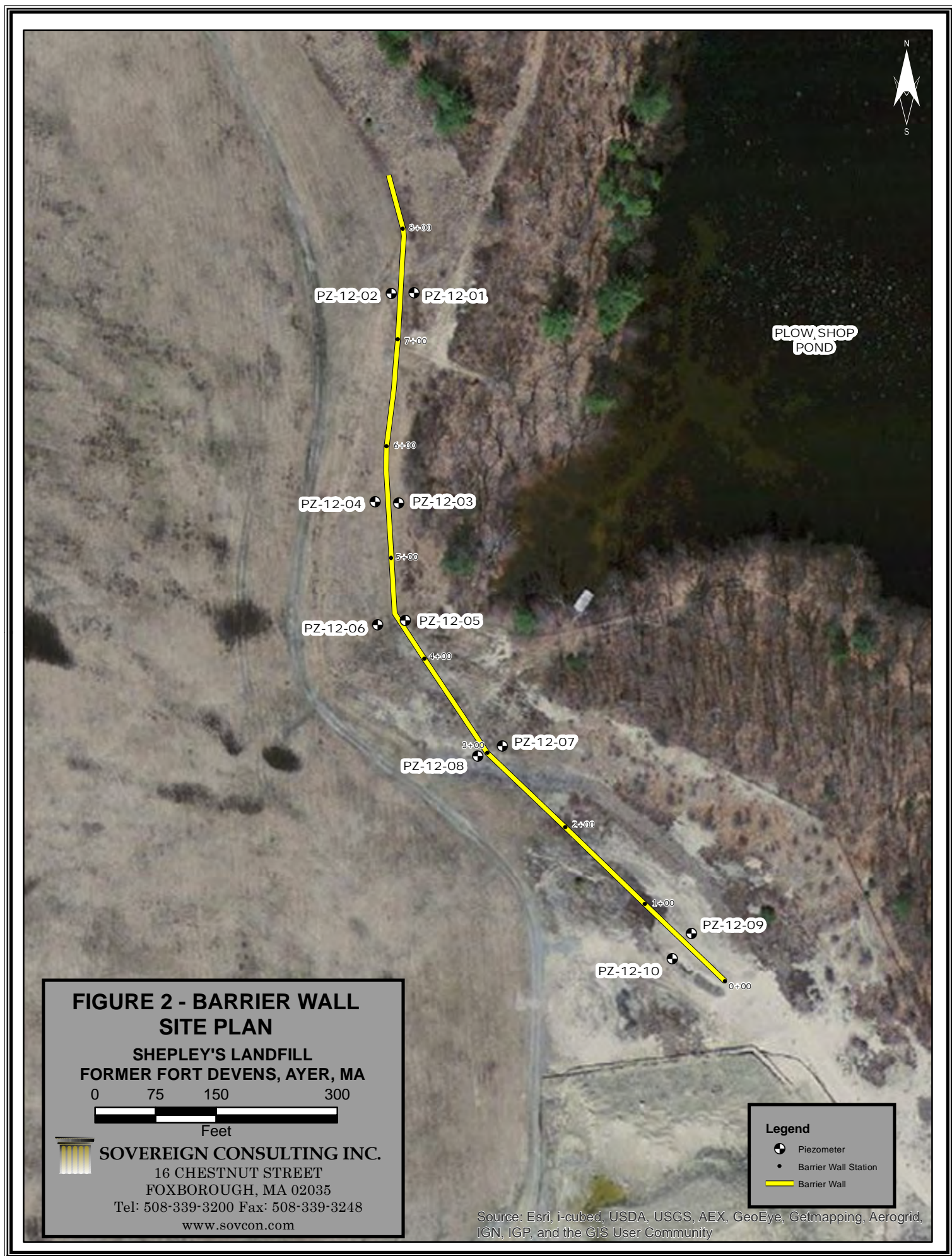
 APPROXIMATE SITE BOUNDARY

NOTES AND SOURCE INFORMATION:  
TOPO: 2009 NATIONAL GEOGRAPHIC SOCIETY, i-cubed  
IMAGERY:ESRI, i-cubed, USDA FSA, USGS, AEX,  
GEO EYE, GETMAPPING, AEROGRIID, IGP

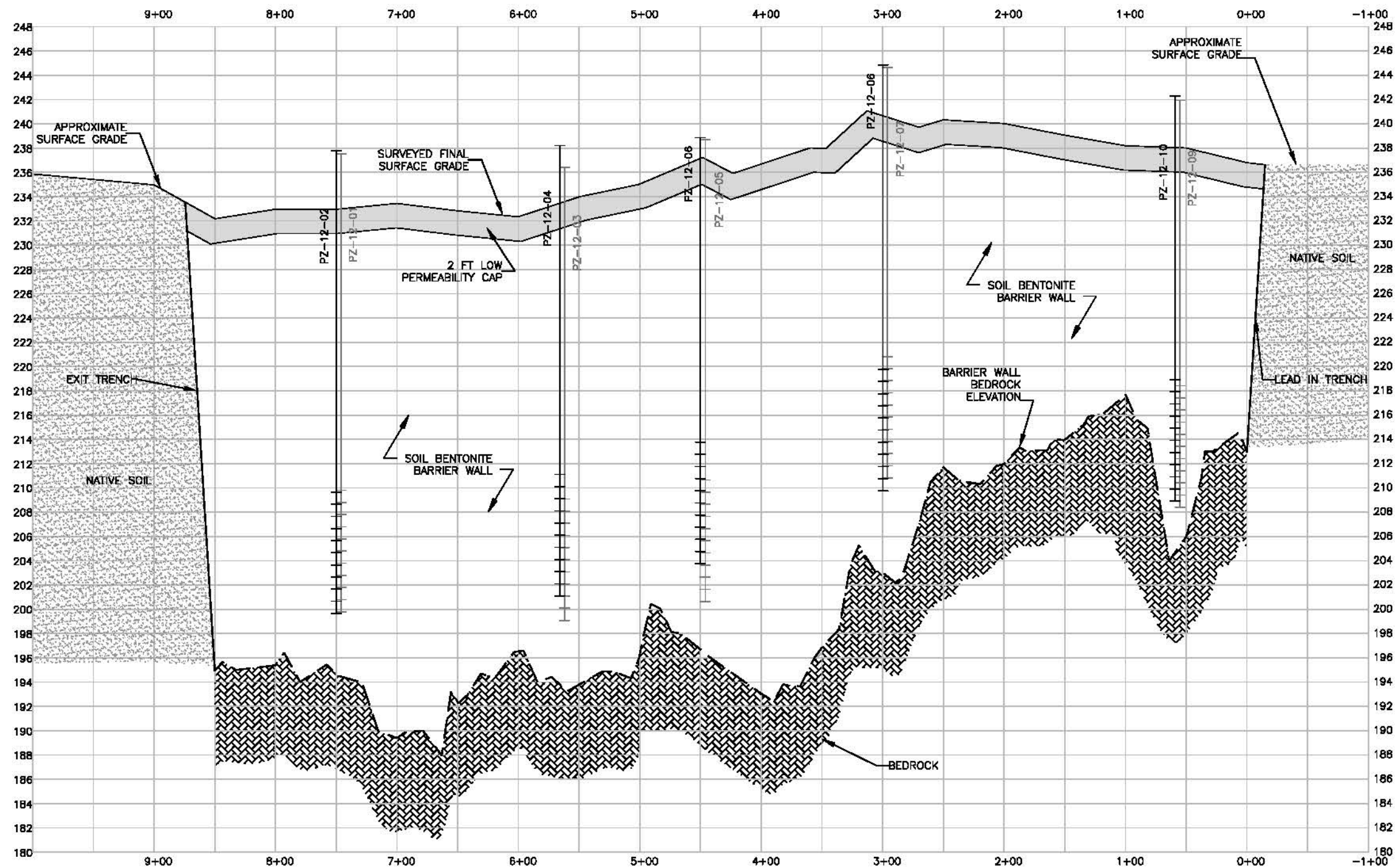
DECEMBER 2010 ROV

 SOVEREIGN CONSULTING INC.  
905B SOUTH MAIN STREET, UNIT 202  
MANSFIELD, MA 02048  
Tel: 508-339-3200  
Fax: 508-339-3248  
[www.sovcon.com](http://www.sovcon.com)









| STA  | WELL     | OFFSET FROM CENTER LINE (FT) | DIRECTION |
|------|----------|------------------------------|-----------|
| 7+50 | PZ-12-01 | 12.72                        | E         |
| 7+50 | PZ-12-02 | 8.21                         | W         |
| 5+70 | PZ-12-03 | 9.64                         | E         |
| 5+70 | PZ-12-04 | 11.70                        | W         |
| 4+50 | PZ-12-05 | 12.27                        | E         |
| 4+50 | PZ-12-06 | 13.82                        | W         |
| 3+00 | PZ-12-07 | 17.31                        | E         |
| 3+00 | PZ-12-08 | 6.51                         | W         |
| 0+60 | PZ-12-09 | 14.04                        | E         |
| 0+60 | PZ-12-10 | 14.78                        | W         |

**LEGEND**

PIEZOMETER SCREEN

PZ-12-01 PIEZOMETER LOCATION

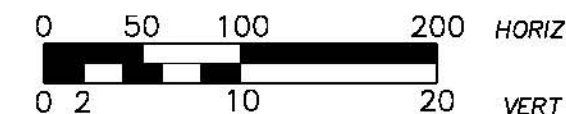
200 ELEVATION

0+00 STATION NUMBER

**NOTES**

1. VIEW FROM WEST

2. SHADED PIEZOMETERS EAST OF BARRIER WALL



# FIGURE 3

## BARRIER WALL AS-BUILT PROFILE

### SHEPLEY'S HILL LANDFILL

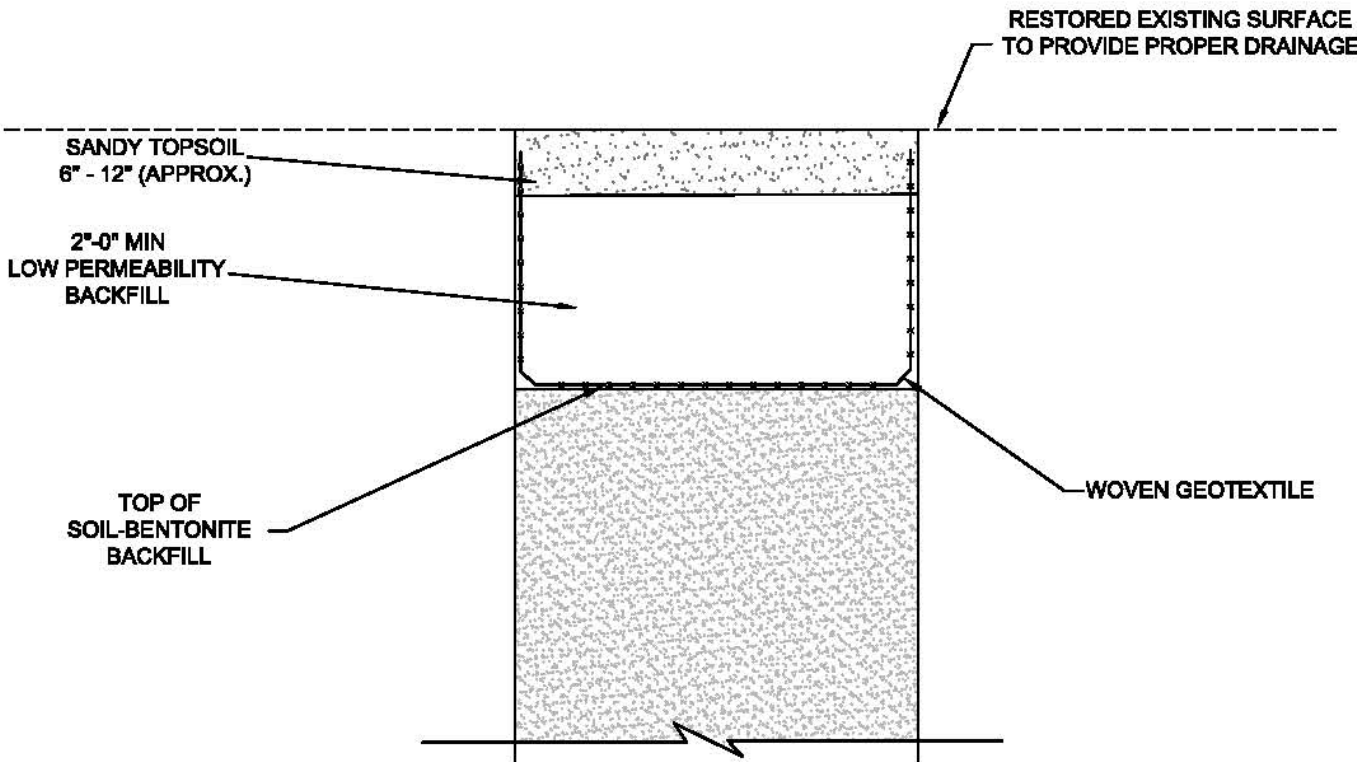
LOCATED AT  
FORMER FORT DEVENS ARMY INSTALLATION  
DEVENS, MASSACHUSETTS

**SOVEREIGN CONSULTING INC.**  
16 CHESTNUT STREET  
FOXBOROUGH, MA 02035  
TEL: (508) 339-3200 FAX: (508) 339-3248

|                                 |                                 |                                  |                |                |
|---------------------------------|---------------------------------|----------------------------------|----------------|----------------|
| PREPARED<br>1/8/2013<br>BY: ASW | UPDATED<br>1/10/2013<br>BY: ROV | UPDATED<br>04/24/2013<br>BY: ROV | UPDATED<br>BY: | UPDATED<br>BY: |
|---------------------------------|---------------------------------|----------------------------------|----------------|----------------|

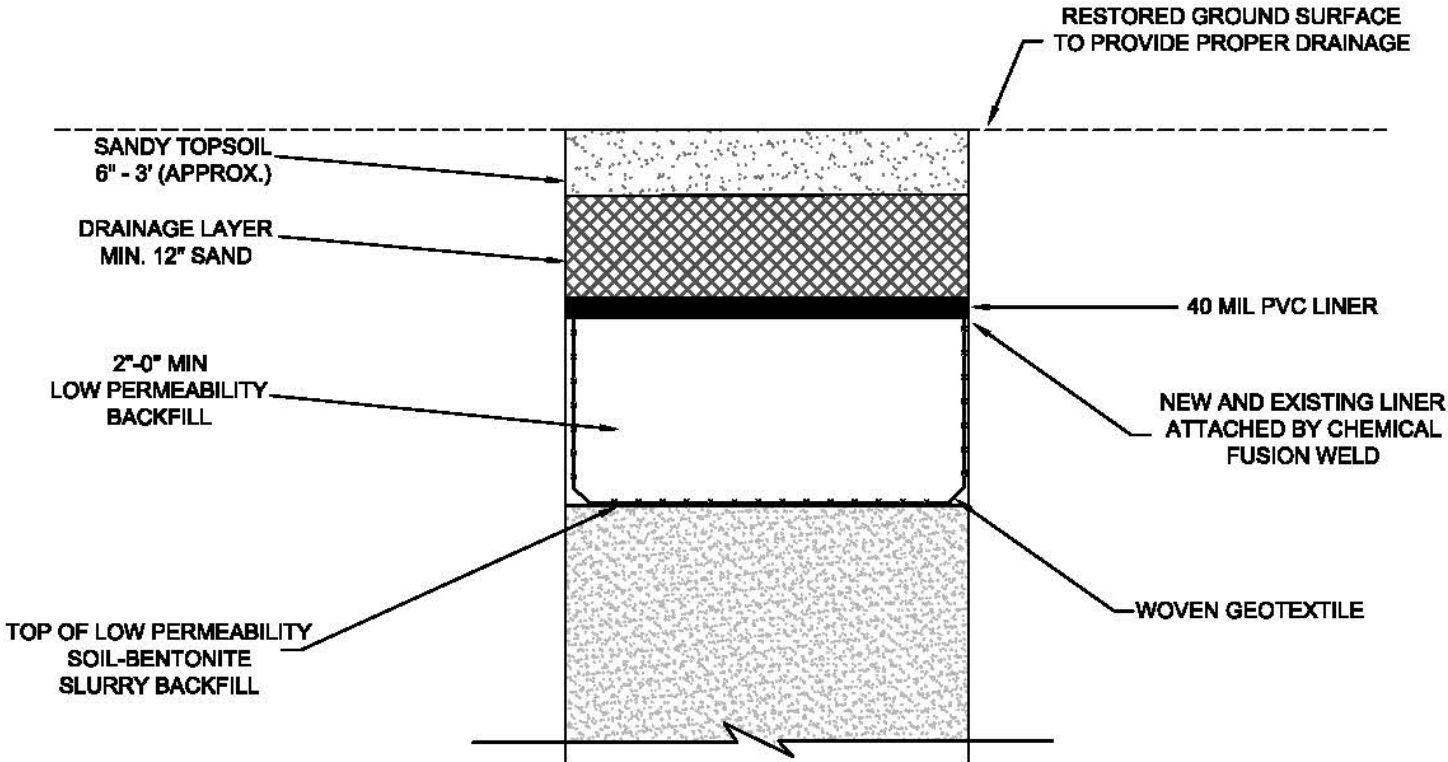
SLURRY WALL CAP DETAIL - OUTSIDE LANDFILL LIMITS  
STATIONS 0+00 TO 0+415

(NOT TO SCALE)



SLURRY WALL CAP DETAIL - WITHIN LANDFILL LIMITS  
STATIONS 0+415 TO 0+850

(NOT TO SCALE)



**FIGURE 4**

**SLURRY WALL CAP  
AS-BUILT DETAIL**

**SHEPLEY'S HILL LANDFILL**  
LOCATED AT  
**FORMER FORT DEVENS ARMY INSTALLATION**  
**DEVENS, MASSACHUSETTS**

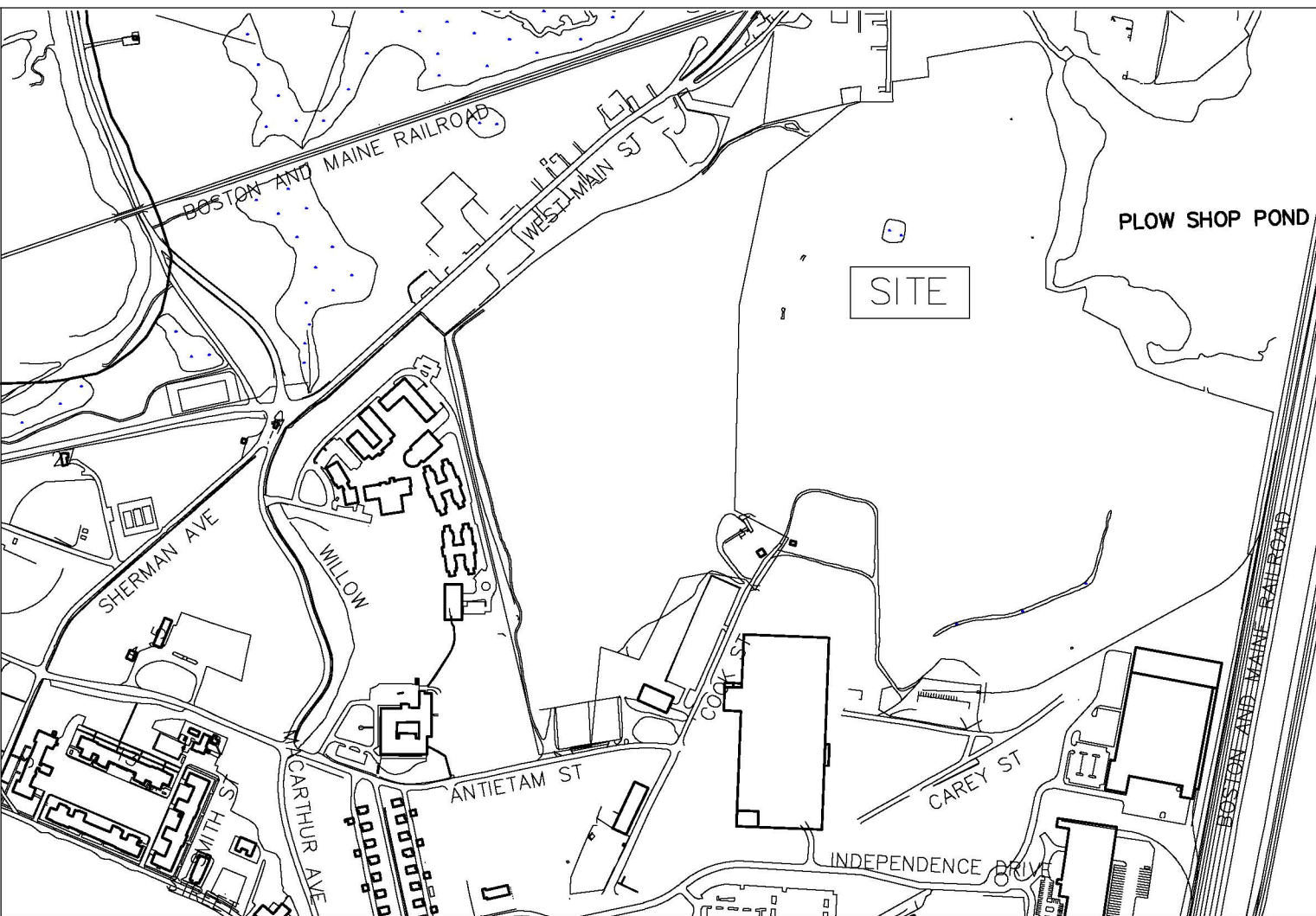


**SOVEREIGN CONSULTING INC.**  
16 CHESTNUT STREET  
FOXBOROUGH, MA 02035  
TEL: (508) 339-3200 FAX: (508) 339-3248

NOTE: LANDFILL CAP DETAILS BASED OFF OF "SECTIONS AND DETAILS - SHEPLEY'S HILL LANDFILL BARRIER WALL, FORMER FORT DEVENS ARMY INSTALLATION, DEVENS, MASSACHUSETTS" BY AMEC ENVIRONMENTAL & INFRASTRUCTURE, INC. DATED 02/12/2012

|                        |         |         |         |         |
|------------------------|---------|---------|---------|---------|
| PREPARED<br>02/06/2013 | UPDATED | UPDATED | UPDATED | UPDATED |
| BY: ROV                | BY:     | BY:     | BY:     | BY:     |





LOCUS MAP  
(N.T.S.)

LEGEND

- MONITORING WELL
- TEMPORARY BENCH MARK
- CONCRETE BOLLARD
- GAS VENT
- CHAIN LINK FENCE
- BARRIER WALL
- EXISTING SOIL PILE
- TREE LINE
- LIMIT OF DISTURBANCE (APPROX.)
- INTERMEDIATE CONTOURS
- INDEX CONTOURS
- RIP-RAP

| WELL - BORING | NORTHING     | EASTING    | GROUND ELEV. | PVC ELEV. |
|---------------|--------------|------------|--------------|-----------|
| MW            | 3,026,841.68 | 630,878.36 | 245.60       |           |
| MW RSK-8      | 3,027,098.42 | 630,514.90 | 226.02       |           |
| MW RSK-9      | 3,027,099.84 | 630,516.31 | 225.71       |           |
| MW RSK-10     | 3,027,098.26 | 630,517.80 | 225.69       |           |
| MW RSK-11     | 3,027,097.18 | 630,517.14 | 225.81       |           |
| MW RSK-12     | 3,027,095.05 | 630,519.31 | 225.78       |           |
| MW RSK-23     | 3,027,071.10 | 630,534.82 | 226.97       |           |
| MW RSK-24     | 3,026,959.54 | 630,502.30 | 240.49       |           |
| MW RSK-25     | 3,026,970.64 | 630,636.33 | 239.62       |           |
| MW RSK-47     | 3,027,093.28 | 630,520.51 | 225.87       |           |
| MW RSK-49     | 3,027,073.07 | 630,660.07 | 219.88       |           |
| MW SHL-10     | 3,026,867.70 | 630,877.27 | 246.62       | 247.97    |
| MW SHL-19     | 3,026,946.02 | 630,665.04 | 238.62       | 240.53    |
| MW SHL-3      | 3,026,705.24 | 630,910.97 | 245.82       | 246.91    |
| MW SHL-4      | 3,027,057.03 | 630,575.71 | 225.59       | 227.49    |
| MW SHM-10-07  | 3,026,889.79 | 630,301.42 | 244.94       |           |
| MW SHM-11-06  | 3,027,590.02 | 630,411.37 | 233.33       |           |
| MW SHM-11-07  | 3,027,132.32 | 630,414.60 | 237.79       | 240.89    |
| MW SHM-93-01A | 3,026,711.56 | 630,677.11 | 240.53       |           |
| MW SHM-93-10C | 3,026,846.23 | 630,886.09 | 245.54       |           |
| MW SHM-93-10D | 3,026,828.82 | 630,894.70 | 245.44       |           |
| MW SHP-05-44  | 3,027,588.48 | 630,587.63 | 255.44       |           |
| * MW PZ-12-01 | 3,027,384.50 | 630,488.33 | 233.80       | 237.54    |
| * MW PZ-12-02 | 3,027,383.76 | 630,467.56 | 233.66       | 237.77    |
| * MW PZ-12-03 | 3,027,193.51 | 630,474.21 | 233.09       | 236.40    |
| * MW PZ-12-04 | 3,027,194.25 | 630,452.84 | 235.11       | 238.20    |
| * MW PZ-12-05 | 3,027,086.56 | 630,480.23 | 236.65       | 238.70    |
| * MW PZ-12-06 | 3,027,081.94 | 630,454.68 | 238.77       | 242.22    |
| * MW PZ-12-07 | 3,026,971.79 | 630,568.57 | 240.83       | 244.63    |
| * MW PZ-12-08 | 3,026,962.43 | 630,546.13 | 241.76       | 244.88    |
| * MW PZ-12-09 | 3,026,801.42 | 630,740.93 | 238.42       | 241.93    |
| * MW PZ-12-10 | 3,026,778.19 | 630,723.78 | 238.92       | 242.28    |

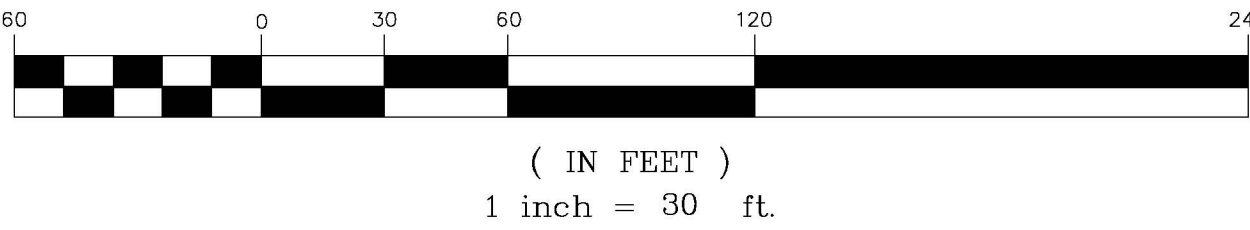
\* NEW WELLS LOCATED ON NOVEMBER 9, 2012

SOURCE: 'AS-BUILT SURVEY, SHEPLEY'S HILL LANDFILL, FORMER FORT DEVENS ARMY BASE, ANTIETAM STREET, DEVENS, MASSACHUSETTS' BY WSP SELLS DATED NOVEMBER 16, 2012

NOTES

- THIS PLAN WAS PREPARED BY WSP SELLS FROM AN ACTUAL ON THE GROUND FIELD SURVEY CONDUCTED BY WSP SELLS ON JUNE 26-27, 2012 AND NOVEMBER 9, 2012.
- THE HORIZONTAL DATUM SHOWN HEREON REFERENCES NAD83.
- THE VERTICAL DATUM SHOWN HEREON REFERENCES NAVD88.

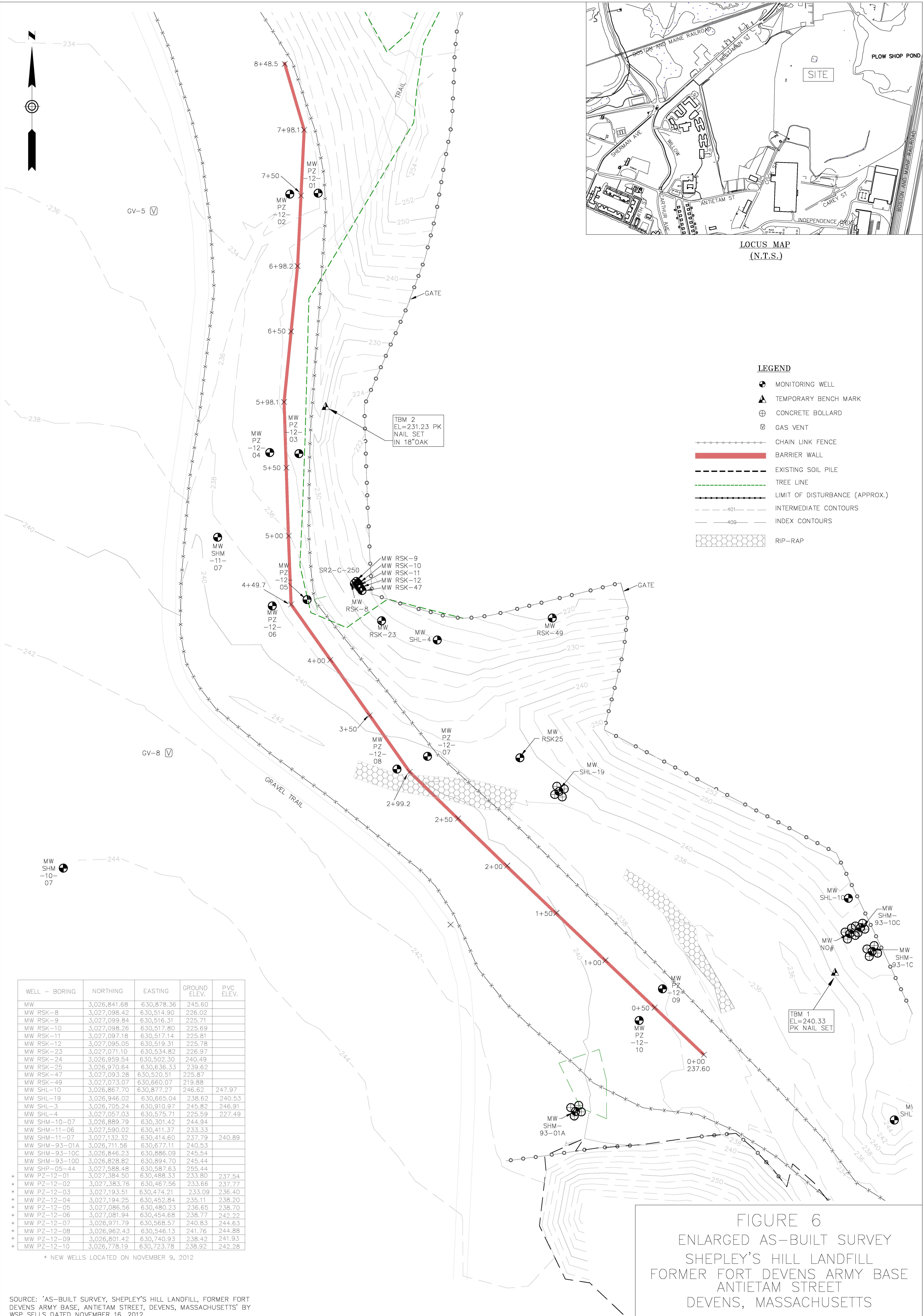
GRAPHIC SCALE



**SOVEREIGN CONSULTING INC.**  
**16 CHESTNUT STREET**  
**FOXBOROUGH, MA 02035**  
**TEL:(508) 339-3200 FAX:(508) 339-3248**

|             |                 |                  |           |
|-------------|-----------------|------------------|-----------|
| Drawn By    | ROV             | Date             | Job No.   |
| Surveyed By | AJ, SJ, JL & RC | JANUARY 10, 2013 | 123081    |
| Checked By  | TH              | Scale            | Sheet No. |
| Revised     | APRIL 24, 2013  | 1" = 30'         | 1 OF 1    |



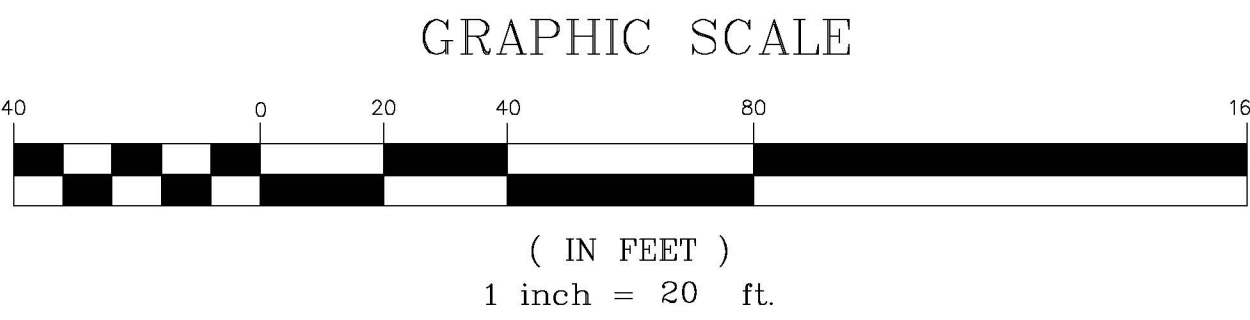


NOTES

1. THIS PLAN WAS PREPARED BY WSP SELLS FROM AN ACTUAL ON THE GROUND FIELD SURVEY CONDUCTED BY WSP SELLS ON JUNE 26-27, 2012 AND NOVEMBER 9, 2012.

2. THE HORIZONTAL DATUM SHOWN HEREON REFERENCES NAD83.

3. THE VERTICAL DATUM SHOWN HEREON REFERENCES NAVD88.



**SOVEREIGN CONSULTING INC.**  
**16 CHESTNUT STREET**  
**FOXBOROUGH, MA 02035**  
**TEL:(508) 339-3200 FAX:(508) 339-3248**

|             |                 |       |                  |           |        |
|-------------|-----------------|-------|------------------|-----------|--------|
| Drawn By    | ROV             | Date  | JANUARY 10, 2013 | Job No.   | 123081 |
| Surveyed By | AJ, SJ, JL & RC | Scale | 1" = 20'         | Sheet No. | 1 OF 1 |
| Checked By  | TH              |       |                  |           |        |
| Revised     | APRIL 24, 2013  |       |                  |           |        |



**TABLE 1**  
**Groundwater Quality Parameters Monitored during Well Development**  
**Shepley's Hill Landfill, Devens, MA**  
**November 9 12, 2011**

| Well Location | Time (Military Format) | Rate (ml/min) | Turbidity NTU | DO mg/L | pH   | Temp Celcius | Spec Cond uS/cm | ORP mV  | Color | Odor |
|---------------|------------------------|---------------|---------------|---------|------|--------------|-----------------|---------|-------|------|
| PZ-12-01      | 0755                   | 700           | 1,070         | 12.17   | 6.27 | 11.54        | 366             | -110.9  | Silty | None |
|               | 0803                   | 700           | 1,064         | 11.59   | 6.28 | 11.09        | 357             | -117.1  | Silty | None |
|               | 0808                   | 700           | 918           | 10.94   | 6.23 | 11.19        | 358             | -120.8  | Silty | None |
|               | 0812                   | 700           | 875           | 8.97    | 6.26 | 11.29        | 355             | -121.9  | Silty | None |
|               | 0817                   | 700           | 970           | 9.89    | 6.28 | 11.20        | 351             | -122.3  | Silty | None |
|               | 0824                   | 700           | 793           | 11.76   | 6.25 | 11.38        | 343             | -122.9  | Silty | None |
|               | 0829                   | 700           | 644           | 8.49    | 6.25 | 11.44        | 345             | -122.2  | Silty | None |
|               | 0834                   | 700           | 61.0          | 8.04    | 6.25 | 11.49        | 345             | -123.2  | Clear | None |
|               | 0893                   | 700           | 22.0          | 4.70    | 6.24 | 11.56        | 347             | -123.8  | Clear | None |
| PZ-12-02      | 0835                   | 750           | 1,912         | 12.20   | 6.37 | 12.95        | 439             | -115.9  | Silty | None |
|               | 0845                   | 750           | 3,607         | 5.80    | 6.43 | 13.15        | 224             | -127.1  | Silty | None |
|               | 0855                   | 750           | 3,993         | 0.61    | 6.43 | 13.33        | 192             | -133.9  | Silty | None |
|               | 0900                   | 750           | OV            | 1.04    | 6.42 | 13.49        | 183             | -135.4  | Silty | None |
|               | 0905                   | 750           | 3,377         | 1.21    | 6.43 | 13.37        | 173             | -136.4  | Silty | None |
|               | 0910                   | 750           | 3,487         | 0.86    | 6.42 | 13.39        | 154             | -135    | Silty | None |
|               | 0915                   | 750           | 3,872         | 0.45    | 6.43 | 13.44        | 152             | -134.7  | Silty | None |
|               | 0920                   | 750           | 4,080         | 0.54    | 6.43 | 13.57        | 146             | -135.1  | Silty | None |
|               | 0925                   | 750           | 3,987         | 0.75    | 6.44 | 13.60        | 148             | -134.6  | Silty | None |
| PZ-12-03      | 1010                   | 1200          | 1,187         | 9.38    | 6.37 | 13.05        | 344             | -136.20 | Silty | None |
|               | 1015                   | 1200          | 1,295         | 9.40    | 6.36 | 13.11        | 342             | -137.70 | Silty | None |
|               | 1020                   | 1200          | 1,221         | 8.99    | 6.36 | 13.16        | 343             | -139.40 | Silty | None |
|               | 1025                   | 1200          | 831           | 6.64    | 6.34 | 13.14        | 350             | -141.80 | Silty | None |
|               | 1030                   | 1200          | 610           | 5.27    | 6.34 | 13.07        | 352             | -142.40 | Clear | None |
|               | 1035                   | 1200          | 641           | 4.27    | 6.34 | 13.16        | 356             | -144.00 | Clear | None |
|               | 1040                   | 1200          | 683           | 3.07    | 6.35 | 13.33        | 357             | -145.20 | Clear | None |
|               | 1045                   | 1200          | 814           | 2.67    | 6.33 | 13.32        | 359             | -145.60 | Silty | None |
|               | 1050                   | 1200          | 1,016         | 5.75    | 6.34 | 13.30        | 367             | -146.50 | Silty | None |
|               | 1055                   | 1200          | 986           | 2.06    | 6.34 | 13.45        | 386             | -147.40 | Silty | None |
|               | 1100                   | 1200          | 917           | 2.03    | 6.34 | 13.50        | 370             | -148.10 | Silty | None |
|               | 1105                   | 1200          | 873           | 2.10    | 6.34 | 13.44        | 368             | -148.50 | Silty | None |
|               | 1110                   | 1200          | 893           | 7.61    | 6.33 | 13.26        | 370             | -148.60 | Silty | None |
|               | 1115                   | 1200          | 830           | 5.07    | 6.33 | 13.33        | 370             | -148.70 | Silty | None |
|               | 1120                   | 1200          | 791           | 3.46    | 6.32 | 13.28        | 374             | -149.10 | Silty | None |
|               | 1125                   | 1200          | 675           | 2.67    | 6.32 | 13.43        | 376             | -150.00 | Silty | None |
|               | 1130                   | 1200          | 606           | 2.43    | 6.33 | 13.56        | 380             | -149.90 | Silty | None |
|               | 1135                   | 1200          | 37.0          | 1.77    | 6.32 | 13.52        | 378             | -149.60 | Clear | None |
|               | 1140                   | 1200          | 12.0          | 1.25    | 6.32 | 13.49        | 379             | -150.00 | Clear | None |

**TABLE 1**  
**Groundwater Quality Parameters Monitored during Well Development**  
**Shepley's Hill Landfill, Devens, MA**  
**November 9 12, 2011**

| Well Location | Time (Military Format) | Rate (ml/min) | Turbidity NTU | DO mg/L | pH   | Temp Celcius | Spec Cond uS/cm | ORP mV | Color  | Odor |
|---------------|------------------------|---------------|---------------|---------|------|--------------|-----------------|--------|--------|------|
| PZ-12-04      | 1010                   | 1100          | 3,348         | 0.83    | 6.49 | 13.14        | 476             | -134.0 | Silty  | None |
|               | 1020                   | 1100          | 1,652         | 0.72    | 6.50 | 12.90        | 441             | -132.0 | Cloudy | None |
|               | 1025                   | 1100          | 23.0          | 0.56    | 6.50 | 12.89        | 432             | -134.6 | Cloudy | None |
|               | 1030                   | 1100          | 73.0          | 0.57    | 6.51 | 12.92        | 430             | -135.2 | Cloudy | None |
|               | 1035                   | 1100          | 57.5          | 0.53    | 6.50 | 12.85        | 424             | -135.2 | Cloudy | None |
|               | 1040                   | 1100          | 53.0          | 0.84    | 6.51 | 12.96        | 424             | -137.2 | Cloudy | None |
|               | 1045                   | 1100          | 86.1          | 1.31    | 6.51 | 13.65        | 425             | -136.8 | Cloudy | None |
|               | 1050                   | 1100          | 22.0          | 0.85    | 6.51 | 13.14        | 417             | -138.6 | Clear  | None |
| PZ-12-05      | 1258                   | 700           | 709           | 14.97   | 6.40 | 12.59        | 538             | -108.9 | Silty  | None |
|               | 1304                   | 700           | 1,037         | 19.25   | 6.33 | 12.52        | 535             | -111.7 | Silty  | None |
|               | 1310                   | 700           | 1,037         | 10.51   | 6.31 | 12.61        | 534             | -111.9 | Silty  | None |
|               | 1315                   | 700           | 843.0         | 13.39   | 6.27 | 12.73        | 583             | -110.7 | Silty  | None |
|               | 1320                   | 700           | 733.0         | 15.92   | 6.13 | 12.41        | 525             | -102.8 | Silty  | None |
|               | 1325                   | 700           | 36.0          | 14.35   | 6.12 | 12.31        | 528             | -103.1 | Silty  | None |
|               | 1330                   | 700           | 99.0          | 21.01   | 5.91 | 12.40        | 530             | -93.4  | Silty  | None |
|               | 1335                   | 700           | 85.0          | 11.47   | 5.00 | 12.40        | 527             | -96.3  | Clear  | None |
|               | 1340                   | 700           | 65.7          | 12.81   | 5.98 | 12.38        | 528             | -96.2  | Clear  | None |
|               | 1345                   | 700           | 48.9          | 14.15   | 5.91 | 12.40        | 527             | -91.9  | Clear  | None |
| PZ-12-06      | 1300                   | 1150          | 44.0          | 1.65    | 6.22 | 13.39        | 381             | -110.4 | Clear  | None |
|               | 1305                   | 1150          | 33.0          | 1.56    | 6.24 | 13.61        | 384             | -114.8 | Clear  | None |
|               | 1310                   | 1150          | 638           | 1.35    | 6.25 | 13.65        | 385             | -117.2 | Clear  | None |
|               | 1315                   | 1150          | 26.0          | 0.75    | 6.25 | 13.37        | 385             | -118.8 | Clear  | None |
|               | 1320                   | 1150          | 45.0          | 0.74    | 6.26 | 13.31        | 386             | -119.2 | Clear  | None |
|               | 1325                   | 1150          | 43.0          | 0.53    | 6.26 | 13.33        | 385             | -119.9 | Clear  | None |
| PZ-12-07      | 0851                   | 250           | 14.0          | 73.49   | 6.37 | 12.04        | 266             | 63.9   | Silty  | None |
|               | 0858                   | 250           | 842           | 257.60  | 6.22 | 12.00        | 252             | -68.1  | Clear  | None |
|               | 0903                   | 250           | 26.0          | 195.20  | 6.08 | 12.36        | 255             | -63.8  | Clear  | None |
|               | 0907                   | 250           | 35.0          | 285.50  | 5.09 | 12.38        | 259             | -48.5  | Clear  | None |
|               | 0910                   | 250           | 3.0           | 153.80  | 6.34 | 12.10        | 262             | -63.0  | Clear  | None |
|               | 0915                   | 250           | 3.0           | 62.50   | 5.55 | 12.37        | 264             | -37.4  | Clear  | None |
| PZ-12-08      | 1000                   | 600           | 3461          | 38.82   | 5.75 | 12.71        | 77              | 59.1   | Silty  | None |
|               | 1036                   | 600           | 634           | 50.32   | 5.79 | 12.80        | 84              | 97.7   | Silty  | None |
|               | 1040                   | 600           | 711           | 50.97   | 5.59 | 13.04        | 86              | 110.4  | Silty  | None |
|               | 1045                   | 600           | 1328          | 57.10   | 4.97 | 12.47        | 79              | 143.4  | Silty  | None |
|               | 1050                   | 600           | 43            | 60.33   | 5.63 | 13.19        | 87              | 118.4  | Silty  | None |
|               | 1056                   | 600           | 38            | 6.42    | 5.34 | 12.90        | 86              | 131.3  | Silty  | None |
|               | 1104                   | 600           | 880           | 5.29    | 5.33 | 12.89        | 83              | 88.7   | Silty  | None |
|               | 1112                   | 600           | 609           | 4.65    | 5.10 | 12.44        | 83              | 156.4  | Silty  | None |
|               | 1117                   | 600           | 574           | 4.65    | 4.87 | 12.48        | 85              | 189.2  | Silty  | None |
|               | 1124                   | 600           | 82            | 52.18   | 5.30 | 12.62        | 85              | 147.8  | Silty  | None |
|               | 1130                   | 600           | 114           | 12.74   | 5.42 | 12.79        | 83              | 132.6  | Silty  | None |

**TABLE 1**  
**Groundwater Quality Parameters Monitored during Well Development**  
**Shepley's Hill Landfill, Devens, MA**  
**November 9 12, 2011**

| Well Location | Time (Military Format) | Rate (ml/min) | Turbidity NTU | DO mg/L | pH   | Temp Celcius | Spec Cond uS/cm | ORP mV | Color  | Odor |
|---------------|------------------------|---------------|---------------|---------|------|--------------|-----------------|--------|--------|------|
| PZ-12-09      | 0820                   | 400           | OV            | 6.48    | 6.71 | 12.82        | 265             | 2.2    | Silty  | None |
|               | 0900                   | 400           | OV            | 7.40    | 6.14 | 12.96        | 256             | 23.1   | Silty  | None |
|               | 0920                   | 400           | OV            | 7.60    | 6.08 | 12.92        | 265             | 38.1   | Silty  | None |
|               | 0935                   | 1,000         | 3,419         | 7.30    | 6.08 | 12.98        | 243             | 42.8   | Silty  | None |
|               | 0950                   | 1,000         | 2,458         | 7.33    | 6.07 | 13.19        | 234             | 52.4   | Silty  | None |
|               | 1005                   | 1,000         | 1,997         | 8.34    | 6.08 | 13.44        | 267             | 52.9   | Silty  | None |
|               | 1015                   | 1,000         | 2,578         | 7.83    | 6.07 | 13.22        | 252             | 54.1   | Silty  | None |
|               | 1025                   | 1,000         | 2,187         | 7.63    | 6.07 | 13.33        | 241             | 55.1   | Silty  | None |
|               | 1035                   | 1,000         | 1,785         | 6.44    | 6.07 | 13.09        | 264             | 57.4   | Silty  | None |
| PZ-12-10      | 1110                   | 1,200         | 3,759         | 10.60   | 5.80 | 13.45        | 43              | 62.4   | Silty  | None |
|               | 1130                   | 1,200         | 1,935         | 11.03   | 5.86 | 13.44        | 43              | 66.9   | Silty  | None |
|               | 1150                   | 1,200         | 1,335         | 11.40   | 5.88 | 13.52        | 85              | 72.9   | Silty  | None |
|               | 1210                   | 1,200         | 693           | 11.72   | 5.88 | 13.74        | 52              | 75.7   | Silty  | None |
|               | 1230                   | 1,000         | 107           | 9.27    | 5.86 | 13.64        | 54              | 79.6   | Silty  | None |
|               | 1235                   | 1,000         | 82.0          | 10.83   | 5.86 | 13.7         | 53              | 79.8   | Silty  | None |
|               | 1240                   | 1,000         | 76.0          | 10.72   | 5.86 | 13.57        | 42              | 119.7  | Cloudy | None |
|               | 1245                   | 1,000         | 65.0          | 9.31    | 5.86 | 13.62        | 44              | 123.1  | Cloudy | None |
|               | 1250                   | 1,000         | 56.4          | 9.56    | 5.84 | 13.45        | 55              | 120.9  | Cloudy | None |
|               | 1255                   | 1,000         | 41.3          | 9.62    | 5.85 | 13.6         | 55              | 120.1  | Clear  | None |

Notes: OV - Over Range of Instrument

**Table 2**  
**Barrier Wall Performance Monitoring**  
**Piezometer Construction Details**

| Well ID  | Northing     | Easting    | Ground Surface Elev. | Top of Casing Elev. | Total Depth BGS (ft) | Screen Depth BGS (ft) |
|----------|--------------|------------|----------------------|---------------------|----------------------|-----------------------|
| PZ-12-01 | 3,027,384.50 | 630,488.33 | 233.80               | 237.54              | 34                   | 24-34                 |
| PZ-12-02 | 3,027,383.76 | 630,467.56 | 233.66               | 237.77              | 34                   | 24-34                 |
| PZ-12-03 | 3,027,193.51 | 630,474.21 | 233.09               | 236.4               | 34                   | 24-34                 |
| PZ-12-04 | 3,027,194.25 | 630,452.84 | 235.11               | 238.2               | 34                   | 24-34                 |
| PZ-12-05 | 3,027,363.03 | 630,389.18 | 236.65               | 238.7               | 36                   | 26-36                 |
| PZ-12-06 | 3,027,081.94 | 630,454.68 | 238.77               | 242.22              | 35                   | 25-35                 |
| PZ-12-07 | 3,026,971.79 | 630,568.57 | 240.83               | 244.63              | 30                   | 20-30                 |
| PZ-12-08 | 3,026,962.43 | 630,546.13 | 241.76               | 244.88              | 32                   | 22-32                 |
| PZ-12-09 | 3,026,801.42 | 630,740.93 | 238.42               | 241.93              | 30                   | 20-30                 |
| PZ-12-10 | 3,026,778.19 | 630,723.79 | 238.92               | 242.28              | 30                   | 20-30                 |

**Notes:**

Horizontal datum references NAD83 US State Plane Mass Mainland US Feet

Vertical datum references NAD88.

**BGS: Below Ground Surface**

ft: feet